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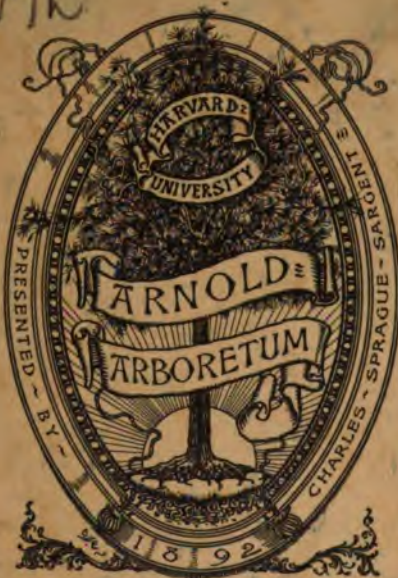
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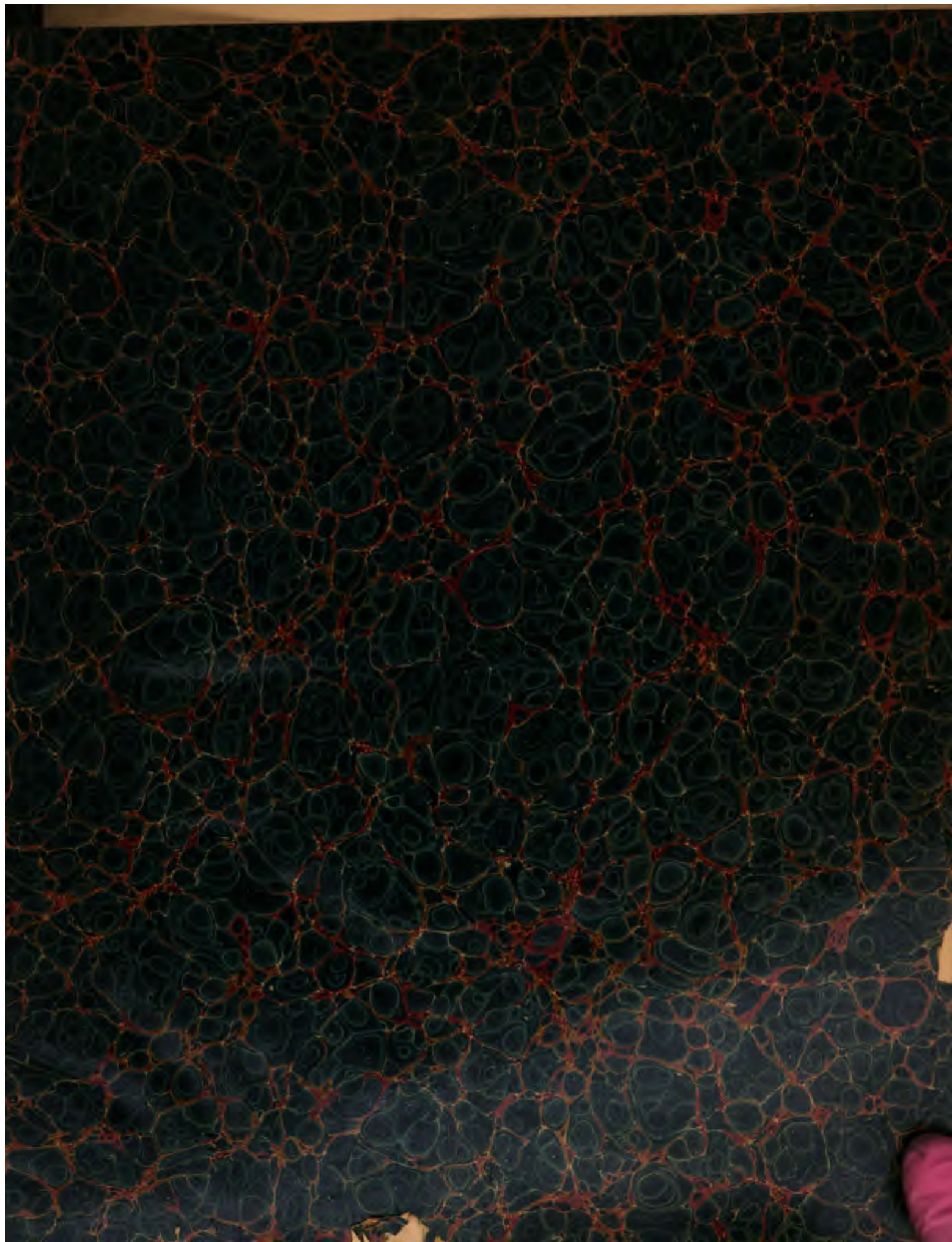
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# HORTUS JAMAICENSIS,

OR A

## BOTANICAL DESCRIPTION,

(ACCORDING TO THE LINNEAN SYSTEM)

AND AN

ACCOUNT OF THE VIRTUES, &c.

OF ITS

INDIGENOUS PLANTS HITHERTO KNOWN,

AS ALSO OF THE MOST USEFUL EXOTICS.

COMPILED FROM THE BEST AUTHORITIES, AND ALPHABETICALLY ARRANGED,

IN TWO VOLUMES,

By *JOHN LUNAN.*

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VOL. I.

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JAMAICA:

PRINTED AT THE OFFICE OF THE ST. JAGO DE LA VEGA GAZETTE.

1814.

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## TO THE SUBSCRIBERS.

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ON the conclusion of a work which has been attended with very considerable labour and expence, the compiler would be wanting in that respect due to the few gentlemen who have patronised it, if he failed to return to them his sincere thanks. Although, at the commencement, and on the cover of every number, he solicited assistance and information, very few indeed have been the contributions received. The greatest assistance afforded has been the perusal of the manuscripts of the late Mr. Anthony Robinson, and several papers of the late Dr. Broughton and others, most obligingly communicated to him by Alexander Aikman, Esq. one of the representatives in assembly for the parish of St. George, in whose possession they now are. From these papers several valuable extracts have been made:—In addition to which, although the original proposals only promised a compilation, many new observations and descriptions will be found interspersed, as they occurred to the compiler in the course of his various researches. Upon the whole, he trusts, however imperfect the attempt, that it will be found the most complete system of Jamaica botany extant. Had encouragement offered, it was the compiler's intention not only to have furnished plates, but to have extended the work to the animal and mineral kingdoms of Jamaica; and thus have formed an entire natural history of the island, on the same plan. He has, however, performed, though at a loss, all he at first promised, and must leave it to others, blessed with more leisure, or more able and indefatigable than himself, to perfect the plan, and to correct the many errors and deficiencies he is conscious will be found in every part of what he has accomplished.





## P R E F A C E.

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**T**HE many advantages which would result from a work of this nature, properly executed, and supported by the assistance and contributions of the well-informed part of the community, must be so obvious as to require no observation. The compiler has only to regret, that his abilities, and his opportunities of acquiring knowledge on the subject, are not adequate to the task of rendering it perfect: a task, indeed, hardly to be performed by an individual.

The principal motive which induced to this collection was a consideration of the great scarcity of almost every valuable work which treated of the plants of Jamaica, and the little probability of their republication. Possessed of these books, as well as many others on the science of botany, which he had studied as an amusement, and having occasionally leisure time, the compiler thought he could not better employ such advantages, than by collecting together the observations of different authors on each particular plant, and comparing them,

them, as far as in his power, with the plant itself. In this way he has gathered and arranged a considerable mass of materials, of which the present humble specimen is offered, with all due deference, for the opinion of the public. Should that opinion prove, fortunately, favourable the publication will be continued, or, if otherwise, relinquished; and it may not, perhaps, be thought improper to state, in this place, the general nature of the work, as now prepared for the press, and the authors principally quoted from, that the public expectation may not be disappointed.

It claims no other merit than that of a careful compilation from Barham, Sloane, Browne, Long, Grainger, Wright, Swartz, the Encyclopedia Britannica, Chambers's Cyclopedia, Martyn's Miller's Gardeners' Dictionary, (a work of inestimable value, and from which the greatest assistance has been derived in the scientific part), besides many other valuable books, as, in its progress, the discerning reader will easily perceive.

As Barham has treated of, and pointed out, more of the virtues of the plants of this island than any other writer, and as the very limited edition which was printed of his Hortus Americanus has long ago been exhausted, the whole of that book will be found interspersed throughout this work. Dr. Barham came to this island early in the last century, was a member in assembly about the year 1731, and returned to England in the year 1740. He was a man of great probity, an able physician, and a skilful naturalist. He collected and arranged a number of the plants of Jamaica, which he presented to Sir Hans Sloane, who acknowledges his obligations to him in several parts of his Natural History, and made some communications to the  
Royal

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Royal Society: he also published a *Treatise on the Silk Worm*, in the year 1719, and, in the same year, a *Practical Kitchen Gardener*, in two octavo volumes, made its appearance, with the name of Barham as the author, which most probably was his composition. Excepting some extracts published by Sloane and Long, no part of his *Hortus Americanus* was printed until the year 1794, the manuscript of which was rescued from destruction by a fortunate accident; having, it is asserted, been thrown into an out-house, where it was discovered by a gentleman who knew how to estimate its value. A more complete copy is, indeed, mentioned to be in the possession of a gentleman in the parish of St. Ann, which, if so, it is to be hoped he will no longer withhold from the public eye. The compiler would rejoice in the opportunity of enriching this publication by any extracts he might be favoured with from so valuable a manuscript.

The celebrated naturalist, Sir Hans Sloane, arrived in this island in December, 1687, in quality of physician to his grace the Duke of Albemarle; but, owing to the death of his grace, his stay here was only fifteen months; yet, in that short space of time, it has been justly observed, he converted his minutes into hours, and brought together such a prodigious number of plants as astonished the learned in Europe. These plants formed the materials for the greatest part of his *Natural History of Jamaica*, in two folio volumes, the first of which was published in the year 1707, and the second not till eighteen years afterwards.

From the preface of Dr. Patrick Browne we understand that he resided several years in this island, during which time he practised as a physician, and that all his leisure hours had been employed in collecting

lecting materials for his Civil and Natural History of Jamaica. He was an expert botanist, contemporary with the great Linneus, with whom he corresponded, who is one of the subscribers to his book, and who adopted most of his classifications of plants into his system. His elegant work contains a more correct and scientific description of the indigenous plants of this island, than any other book, previously published.

The very valuable observations of Dr. William Wright, formerly surgeon-general of this island, on its medicinal plants, were first and principally published in the London Medical Journal, and some have been gleaned from his other publications, as well as from his notes upon Grainger, who has likewise afforded some useful information. The Synopsis of Mr. Long has also furnished many extracts which are of considerable value.

The learned and indefatigable professor Olof Swartz, lately librarian to the King of Sweden, travelled through most of the West-India islands, in pursuit of botanical knowledge, between the years, 1783 and 1787, and has published three able works, frequently referred to, containing an account of the discoveries and improvements he made in his favourite science. In these he has very correctly described and arranged a vast number of the indigenous plants of this, and the other islands, which have been approved, and his arrangements adopted, by the most eminent modern botanists.

In quoting from the before-mentioned or other authors, care has been taken to avoid repetition as much as possible, and where the descriptions are nearly the same the best has been preferred. References.

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ences are made, at the foot of each article, to every plant of the same genus, or family, which may be described in the progress of the work, as well as to the page and the plate of every authority that may be quoted.

The popular mode of alphabetical arrangement, under familiar names, has been adopted, as the most agreeable to readers in general; but, for the benefit of the more scientific, a classical table will be given, at the conclusion of the work, according to the Linnean system, which has been strictly adhered to, with references to the page in which each plant is described. Systematic forms certainly yield great advantages to the professional student, but they only tend to confuse and embarrass the general reader, though it was as easy, perhaps more so, to have thrown the whole under a classical rather than an alphabetical arrangement. It is very difficult, in a work of this nature, to steer a course that will please all. The few learned, who may be judges of the science, will find fault with the least deviation from system; others will be inclined to condemn the work, because too much of it is occupied by scientific and, to them, unintelligible terms. In attempting to please both, it may so happen that neither will be satisfied, and it is probable that a strictly popular form was the most likely to succeed. Be this as it may, an attempt has been made to unite both objects.

Aware of the great difficulty of such an undertaking, so general in its plan, so uncertain in many of its minutiae, the compiler feels, that, with all the attention in his power, mistakes will be committed; he, nevertheless, trusts to the liberality of the public for indulgence, to the better informed for correction: and let it be remembered, that  
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## P R E F A C E

His main object is to rouse attention to so interesting a subject, and thereby create a spirit of enquiry. To attain this purpose, no mode of publication can be better calculated than that of distinct numbers at distant intervals; and, to afford every opportunity of communication, either for improvement or correction, the articles to be contained in each succeeding number, with occasional queries, will be enumerated on the cover of the one previously published.

Should the attempt, thus ushered before the public, be well supported, it is not easy to anticipate the beneficial consequences that may arise therefrom; and it is presumed that no one will be so selfish as to conceal from his fellow-creatures any useful information, concerning the plants of this island, while so ready a channel is open for its conveyance. No object can be more laudable than that of contributing towards the improvement of the human understanding, or of extending the common stock of useful knowledge, and thereby increasing the general comforts of mankind.

Of all the branches of science none is of more importance or of more universal utility, none more pleasing to the student, than botany,\* and none where the materials of study are so easily procured; for

\* Mr. Smith, the president of the Linnean Society, very justly observes, in his Introduction to Botany, that to medical gentlemen a knowledge of that science is indispensably necessary, and should form an essential part of their education. The following relation, extracted from Curtis' Lectures on Botany, evinces the necessity, and cannot be too generally known; it was communicated to Mr. Curtis, by Mr. Lowe, surgeon at Preston, in the following words:

" On Thursday the 5th of June, Mr. Frickleton, a healthy strong man, about thirty-five years of age, a publican in the town, eat a handful of fools parsley, with nearly the same quantity of young lettuce, about one o'clock at noon; in about ten minutes he was affected with a pain and hardness in his stomach and bowels, attended with a rumbling. He walked out into the fields, but



## P R E F A C E.

for the delightful verdure of the fields is continually before our eyes, continually inviting the researches of the curious naturalist,—

Who, when young Spring protrudes the bursting gems,  
Marks the first bud, and sucks the healthful gale  
Into his freshen'd soul; her genial hours  
He full enjoys; and not a beauty blows,  
And not an op'ning blossom breathes, in vain.

THOMSON.

There is not a planter in the island but has some leisure time to cultivate this agreeable study, and his very hours of business will afford him

but was seized with such languor, weariness, and weakness, that it was with difficulty he supported himself till he got home; he was much troubled with giddiness in his head, his vision was confused, and sometimes objects appeared double: at seven o'clock he took an emetic, which brought up, as he supposes, all the fools parsley he had eaten; but not any of the lettuce; this considerably relieved him from the uneasy sensations in his bowels, but the other symptoms continued, and he passed a restless night. Next day he had much pain in his head and eyes, which last were inflamed and bloodshot: he had different circumscribed swellings in his face, which were painful and inflamed, but they were transient, and flew from place to place; this night he took a powder which made him sweat profusely. On Saturday his eyes were highly inflamed, painful, and entirely dozed by the surrounding inflammation; this day he was bled, which gave him much ease in his head and eyes. From this time until Monday he continued to get better; but had, even then, pain, heat, and inflammation in his eyes, with oedematous swellings of his cheeks; his remaining symptoms went off gradually, and he is now well. He had been told that the plant he had taken was betelock: to be satisfied I accompanied him into the garden where he had gathered the plant, and found it to be *athusa cynapium*, or fools parsley. To be convinced of this beyond a doubt, I compared a specimen of it with the figure and description of the plant in the *Flora Londinensis*, with which I found it exactly to correspond."

"Independent of the singular satisfaction (continues Mr. Smith) which Mr. Lowe must feel from knowing the plant in question, an advantage has arisen to the public; the poisonous quality of the fools parsley is ascertained, which before was only suspected. Time, and a taste for science, which of late years have made such rapid advances, and such material improvements in every branch of medicine; which has introduced a rational practice, founded on an intimate knowledge of the animal economy, and an accurate history of diseases; which has rescued surgery from the hands of pretenders, and taught mankind to repose a confidence in those only who have laudably exerted themselves in acquiring anatomical knowledge; which has redeemed chemistry from empirics, and made it subservient to the practice of physic; will, it is presumed, in a few years, place botany in a more favourable point of view, and cause its utility to be more generally acknowledged."

him the means of improving his knowledge. To those whose occupations confine them to town, the pleasures of a ride or a walk will be much enhanced by some acquaintance with the surrounding objects:—besides the general landscape, their minds would be amused by the indescribable beauties of nature in her minutest recesses, and by studying how to reap the fruits of the wonderful vegetable treasures which the bounteous hand of the Almighty has so abundantly scattered around. Should so laudable a spirit of enquiry be aroused, the compiler will rejoice in having undertaken the humble office of pioneer to Jamaica botany, and hope to see, at no distant period, a superstructure raised, on the materials he has selected, that will be a lasting memorial of the good taste and discrimination of this community.

HORTUS

## HORTUS JAMAICENSIS.

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ACACIA or ACACEE,—see CASHAW.

ACACIA, FALSE,—see ROBINIA.

ACAJOÜ,—see CASHAW.

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No English Name.

ACALYPHA.

CLASS 21, ORDER 9—*Monecia monodelphia*.

NATURAL ORDER—*Tricocce*.

THE generic name of this plant is derived from a Greek word, which signifies 'not pleasant to handle.'

GENERIC CHARACTERS.—Male calyx three or four leaved; no corolla; stamina eight to sixteen: Female calyx, three leaved; no corolla; styles three; capsules three-grained and three-celled; seeds solitary. There are fourteen species, seven of which are known to be natives of Jamaica, viz.

### 1. REPTANS.

*Urtica minor dens spicata folio subrotundo serrato fructu tricocco*,  
Sloane's Jam. v. 1, p. 125, t. 82. f. 3.

Spikes terminating erect, flowers mixed, females lower; involucre cordate-serrate; males leafless; leaves ovate-serrate; stem creeping.

This plant is described by Sloane as having a large brown root, sending out small stems along the surface of the earth; the leaves small, without order, with short foot-stalks, round, smooth, and serrated. The flowers come out in spikes terminal erect, and are purple intermixed with white ones, succeeded by capsules, which become red and rough on the outside. In each of these are three roundish seeds, every one covered with a membrane.

### 2. VIRGINICA.

*Humilior, foliis cordato crenatis, spicis mixtis; alaribus et terminalibus*. Browne. p. 346, t. 36, f. 1.

Female involucre heart-shaped gashed; leaves ovate-lanceolate, longer than the petiole.

This is a small twiggly shrub, seldom exceeding four or five feet in height, the leaves and flowers are much like those of pellitory of the wall.

B

3. VIRGATA

## 3. VIRGATA.

*Erecta virgultosa, foliis ovato acuminatis atque crenatis, spicis uniformibus alaribus.* Browne, p. 346, t. 36, f. 2.

Female involucre heart-shaped, serrate; male spikes distinct, naked; leaves lance-ovate

This grows in great plenty in Jamaica. Its leaves resemble those of the annual nettle and sting full as much when touched.

## 4. TOMENTOSA.

Female spikes terminating solitary; involucre many-parted; males erect; leaves ovate-lanceolate; serrate scabrous, villous-tomentose underneath.

## 5. ANGUSTIFOLIA.

Female flowers sub-sessile terminating, involucre serrate; males in spikes; leaves linear serrate.

## 6. SCABROSA.

Female spikes with cordate gashed involucre: leaves oblong-lanceolate serrate scabrous.

## 7. BETULÆFOLIA.

Female flowers axillary sessile, involucre cordate crenate; males in spikes; leaves roundish, crenate, smooth.

The above plants are easily propagated from their seeds, but are possessed of no beauty. The last four species are from Swartz's Prodrômus.

## No English Name

## ACHANIA.

CL. 16, OR. 6—*Monodclphia polyandra*. NAT. OR.—*Columnifera*.

The name is derived from a Greek word, signifying 'not to open,' as the corolla does not open.

GEN. CHAR.—Calyx double, outer many-leaved, inner one-leaved; the corolla subclavate, convoluted, petals five; berry sub-globular, fleshy, five-celled, five-seeded; seeds solitary, convex on one side, angular on the other. There are three species, all natives of Jamaica.

## 1. MALVAVISCUS.

*Frutescens, foliis angulatis, cordato acuminatis, crenatis; petalis ab uno latere auritis.* Browne, p. 284.

Leaves somewhat scabrous, acuminate, leaflets of the outer calyx erect.

This plant is named *scarlet achania*, or bastard hibiscus; it is common in the woods, but seldom seen in the lowlands. The stem is arboreous, about ten feet high, and is branched. Leaves petioled, cordate, crenate, tomentose, sometimes slightly three or five lobed, the middle lobe most produced. Stipules bristle shaped, small, withering. Flowers axillary, solitary, on villous peduncles shorter than the petiole. Outer calyx eight.

eight-leaved; the leaflets coalescing at the base; inner marked with ten streaks, five-toothed at the tip. Corolla and tube scarlet, the latter twisted into a spiral, upright, very long. Stigmas hispid, blackish.

## 2. MOLLIS.

Leaves tomentose, leaflets of the outer calyx spreading.

This is called the *woolly achania*. The branches, petioles, and leaves, are covered with a very thick nap. The leaves are sometimes cordate-ovate acuminate, and sometimes angular, slightly three-lobed.

## 3. PILOSA.

Leaves hairy, obtuse, acute. *Sw. Pr. p. 102.*

The *hairy achania* has a very different appearance from the two former. It is shrubby, as they are, but the stem and branches are smaller, thinner, and not downy. The leaves are hairy, cordate-ovate, with broad irregular serratures about the edge; some of them blunt and even retuse; but others acute. The stipules are subulate. The leaflets of the outer calyx spread out towards the end and spatulate. The flowers are small, convolute, and closed. These plants may be propagated by cuttings or seeds.

## ACHIMENES.

## COLUMNEA.

CL. 14, OR. 2.—*Didynamia angiospermia.* NAT. OR.—*Personate.*

THE name columnea was given by Plumier, in honour of Fabius Columna, or Colonna, of Italy.

GEN. CHAR.—Calyx a large one-leaved perianthum, five-parted; corolla large, one-petaled, ringent, gaping, tubular, upper lip three-parted, middle part vaulted, emarginate; the stamina in the upper lip; anthers connected; germen roundish; capsule one or two-celled; seeds numerous, small, nestling. There are six species, three of which are found in this island.

## 1. HIRSUTA.

*Rapunculus fruticosus, foliis oblongis, integris, villosis, ex adverso siliis, flore purpureo villosis.* *Sloane, v. 1, p. 157, t. 100, f. 1. Major, herbacea, subhirsuta, oblique assurgens, &c. Browne, p. 270, t. 30, f. 3.*

Leaves ovate, acuminate, serrate, roughly hairy on the upper surface, calycine leaflets tooth-letted lanceolate; they and the corollas hirsute, the upper lip bifid.

The larger hairy *achimenes*. This beautiful vegetable is a native of the cooler mountains, and most commonly met with in the woods of New Liguanea and St. Ann's. It is a very succulent plant, and grows luxuriantly in every rich and shady soil; throwing its branches frequently to the height of four or five feet, and higher, when supported by some neighbouring shrub or stump. The stem is pretty thick, and the leaves opposite and alternately larger. The flowers are large, beautifully variegated, and hairy on the outside, like the other parts of the plant. The divisions of the cup are of a sin-



gular structure, and pinnated on the sides; somewhat like those of the garden rose. The whole plant has an uncommon, but beautiful, appearance, and deserves to be cultivated in all flower gardens in the cooler parts of the island, where it is most likely to thrive.

## 2. HISPIDA.

Leaves ovate, obtuse, tooth-letted, hispid-hirsute, leaflets of the calyx lanceolate, entire, hairy, stem hairy rugged. *Sw. Pr.*

## 3. RUTILANS.

Leaves ovate-lanceolate, villose, denticulate, coloured underneath; divisions of the calyx jagged, villous; corolla villose, upper lip two-parted. *Sw. Pr.*

These plants are propagated from seeds.

## No English Name.

## ACHYRANTHES.

CL. 5, OR. 1.—*Pentandria monogynia* NAT. OR. *Miscellanea*

This genus takes its name from two Greek words, signifying chaff and a flower.

GEN. CHAR.—Calyx a double perianthium, outer three-leaved persistent, inner five-leaved also persistent; no corolla or scarcely perceptible; nectarium five-valved, surrounding the germen, bearded at the top, concave, and falling off; the perianthium is a roundish one-celled capsule; the seed single and oblong. The following species are natives of Jamaica:

## 1. ASPERA.

*Amaranthus sicutus spicatus radice perenni botone.* Sloane, v. 1, p. 142. *Caule geniculato erecto, foliis ovatis oppositis, &c.* Browne, p. 180.

Stem shrubby erect; calyx reflex, pressed to the spike.

It rises three or four feet high, by a square jointed stalk, opposite branches; the leaves are dark green, woolly on both sides, oblong, smooth, pointed. The flowers are in spikes at the end of the branches, appearing first like short reddish hairs, after which follow rough, prickly, green, reflected, capsules, containing five seeds, oblong, reddish. It grows in ditches.

## 2. ALTISSIMA.

*Foliis ovatis, floribus spicatis, appendicibus bisetis.* Browne, 180. *Bli-tum album majus scandens.* Sloane, v. 1, p. 142.

Stem suffruticose scandent, panicles terminating axillary, branched.

This has a green stalk as thick as ones thumb, supported by shrubs and trees, on which it leans, grows five or six feet high, putting out here and there branches, having leaves about an inch and a half's distance, on inch-long footstalks, three inches long and half as broad. The leaves are ovate, acute, smooth, soft, of a dark green colour, six inches long. The flowers grow in spikes, of a pale green or herbaceous colour, a great many together. The seminal vessels or husks break horizontally, and contain

contain small black, shining, compressed, kidney-shaped, seeds. It grows on the banks of the Rio-Cobre, and on the road to Passage-Fort, very plentifully.—*Sloane*.

Browne calls this bastard hoop-withe. These plants are raised from the seeds, and grow commonly among low bushes.

No English Name.

ACIDOTON:

CL. 21, OR. 7.—*Monoechia polyandria*.

GEN. CHAR.—Male calyx five-leaved, leaves ovate-lanceolate, reflex; no corolla; stamina numerous, placed on a globular receptacle: Female calyx six-leaved; leaflets linear, lanceolate, spreading; no corolla; style short, germen three-cleft; capsule three-grained, hirsute, three-celled; seeds solitary, ovate. There is only one species, described as follows by *Sloane*:

*Urtica urens arborea, foliis oblongis, angustis.* *Sloane*, v. 1, p. 124, t. 83, f. 1.

This shrub rises eight or nine feet high by a round straight woody trunk, of the bigness of ones finger, covered with a smooth brownish bark. The leaves come out towards the top alternately, they are narrow, lanceolate, three or four inches long, and a quarter of an inch broad, with often a tooth near the top; of a dark green colour, several ribs on the under side, and on the surface and edges many long small prickles, which are said to be very burning. The petioles are short and ribbed.

See ADELIA.

ACISANTHERA. RHEXIA ACISANTHERA.

CL. 8, OR. 1.—*Octandria monogynia*. NAT. OR. *Calycanthema*.

The generic name is derived from a Greek word, signifying to break or burst.

GEN. CHAR.—Calyx one-leaved, four-cleft, permanent; corolla four petals, roundish and inserted into the calyx, spreading; stamina filiform, anthers declining; germen roundish, crowning the calyx; style short, simple, declining; capsule roundish, four-celled, within the belly of the calyx; seeds numerous, roundish. There are thirteen species, only three of which have been discovered in Jamaica, viz. . .

I. ACISANTHERA.

*Erecta ramosa, ramulis quadratis, foliis trinerviis ovato crenatis, oppositis; floribus singularibus ad alas alternas.* *Browne*, 217, t. 22, f. 1.

Flowers alternate, axillary, penduncled, five-cleft.

This plant grows in the pastures eastward of Luidas, and seldom rises above fourteen or sixteen inches in height. The stem is pretty firm and square, and emits a good many square branches towards the top; the leaves are small, three nerved, ovate, crenate, and opposite. The flowers spring singly from the alternate axils or bosoms of the leaves. The calyx is deeply five-cleft at the mouth. Petals five, obovate, inserted into

## HORTUS JAMAICENSIS.

ADELIA

into the throat of the calyx. Filaments ten, shorter than the corolla. Anthers oblong, saggitate, and subarcuate, versatile. Germ crowned with the calyx. Style short. Stigma sharp. Capsule two-celled, filled with two little placentas.—*Browne*.

### 2. LEUCANTHA.

Leaves opposite, cartilaginous-tooth-letted, coriaceous, shining, branchlets four-cornered; flowers terminating—ten-stamened.—*Sw. Pro. 61.*

### 3. PURPUREA.

Leaves opposite tooth-letted, coriaceous, branchlets round, flowers axillary ten-stamened.—*Sw. Pro. 61.*

The stamens in some plants of this genus are inconstant, from seven to twelve, and there is a plain alliance between it and *osbeckia* and *melastoma*. The different species are propagated by seeds.

ACHROSTICUM—See FERNS.

ADAM'S NEEDLE—See DAGGER PLANT.

*No English Name.*

ADELIA.

CL. 22, OR. 11.—*Diaccia monodelphia.* NAT. OR. *Tricoccæ.*

The name is from a Greek word, signifying obscure.

GEN. CHAR.—Male calyx one-leafed three parted, leaflets oblong curved back; no corolla; the stamina consist of many capillary filaments, the length of the calyx, united into a cylinder at the base; the anthers roundish: The female calyx is five-parted; no corolla; pistillum a roundish germen; styles three, very short and divaricated; the stigmata torn; the perianthium a three-grained, roundish, three-celled, capsule; seeds solitary and roundish. There are three species, all natives of Jamaica:

### 1. BERNARDIA.

*Fruticosa, foliis tomentosis ovatis serratis alternis.* Browne, 361.

Leaves oblong tomentose, serrate.

This Browne calls the shrubby *bernardia* with villous leaves.

### 2. RICINELLA.

*Fruticosa, foliis subrotundis nitidis confertis floribus associatis.*  
Browne, 361.

Leaves oblong-ovate, quite entire.

The smooth leaved *bernardia* has slender flower stalks, and is common in all the lowlands about Kingston, it rises to the height of eight or ten feet.—*Browne*.

### 3. ACIDOTON.

*Frutescens aculeatim et diffusum, ramulis gracilibus teretibus, foliis confertis flore unico vel altero associatis.* Browne, 355.

Branches flexuose, spines gemmaceous.

The

The small shrubby *acidoton* is pretty common in the savannas about New-Greenwich, where it seldom rises above four feet in height. The branches are very slender and flexible, and the leaves small and delicate, and shoot with the flowers early in April or May. The whole plant has a good deal of the appearance of a young ebony.—*Browne*. These plants are nearly allied to the croton. Dr. Houston constituted a genus of the two first by the title of *bernardia*, in honour of Dr. Bernard de Jussieu. They are propagated from seeds.

No English Name.

ADENANTHERA.

CL. 10, OR. 1.—*Decandria monogynia*. NAT. OR.—*Lomentaceæ*.

This name is derived from two Greek words, signifying a glandulous anther.

GEN. CHAR.—Calyx small, one-leafed, five-toothed; corolla five-petalled, bell-shaped; stamina shorter than the corolla; anthers roundish, incumbent, bearing a globose gland at the outer tip; germen oblong and gibbous below; style subulate and the length of the stamina; stigma simple; the pericarpium a long compressed membranaceous legumen; seeds many, round, remote. This is an East-India tree, of which three species are known, the most remarkable is noticed in the Hortus Eastensis as having been introduced into that garden by Mr. Wilcs, in the year 1802. The following account of it is quoted from Gærtner and Forster, in Dr. Martyn's dictionary:

PAVONINA.

Leaves smooth on both sides.

A tree with prodigious decomposed or doubly pinnate leaves, leaflets ovate, obtuse, quite entire, on very short petioles, sometimes alternate, sometimes opposite. Panicle of simple thick racemes, with the floscules on equal pedicels. Flowers comparatively very small, and yellow. Legume nearly a foot in length, repand at the sutures and obscurely torulose at the seeds, smooth, one-celled, two-valved. The valves after they open are loosely and spirally twisted. Seeds from eight to twelve, obovate-rounded, convexly lens-shaped, highly polished, of a vivid scarlet colour, with a circular streak in the middle on each side. This is one of the largest trees in the East-Indies, and the timber is in common use, on account of its solidity. It flowers in September, bears fruit at the beginning and end of the year, and is never without leaves. The duration is two hundred years. The natives use the powder of the leaf in their ceremonies. The seeds, besides being eaten by the common people, are of great use to the jewellers and goldsmiths, on account of their equality, for weights, each of them weighing four grains: They also make a cement, by beating them up with water and borax. Of the bruised leaves they make a drink which they esteem good against pains of the loins.

ADRUE.

CYPERUS.

CL. 3, OR. 1.—*Triandria monogynia*. NAT. OR.—*Calamaria*.

GEN. CHAR.—The glumes are chaffy, imbricate in two rows; scales ovate, keeled, flat-inflected,

inflected, separating the flowers; no corolla; stamina three, short, anthers oblong and furrowed; germen small; style long; stigmas three capillary: Seed single, three-sided, acuminate, destitute of villus. There are many species of this genus, for which see SEDGES, the specific name of ad rue or jointed stalked cyperus is

## ARTICULATUS.

*Juncus cyperoides creberrime geniculatus, medulla farctus, aquaticus, radice rubra, tuberosa, odorata.* Sloane, v. 1, p. 121, t. 81, f. 1.

This rush has a tuberous, red, knobbed root, having a very grateful smell, like that of *calamus aromaticus*, covered with brown withered leaves, as well as the under part of the stalk, like other rushes, and having several red strings going from the root of one to that of another. The stalk is round, green, three feet high, smooth, having within it very strong and frequent transverse partitions or membranes, making it jointed with a pith between. At the top stand several brown chaffy panicles, like those of cyperus grasses, the small, long, spikes, being made up of several reddish scales, lying over another on the same footstalks, all coming from the rushes top, as from a common centre. This having a very grateful scented root, I question not but that it may be very successfully used in place of *calamus aromaticus*. Sloane also mentions another plant, *juncus, cyperoides, culmo compresso striato, radice odorata tuberosa, capitulo rotundo compacto*, a variety of the ad rue, which he received from the Bay of Honduras; and he was informed it grew upon the sand near Truxillo, where the Indians used it as a cure for the belly-ache.—Sloane.

The roots are esteemed cordial, diuretic, and cephalic, serviceable in the first stages of the dropsy, resisters of poison, and expellers of wind. They cure ill-scented breaths, and are good in nephritic disorders and colics.

The roots, aromatic and stimulant, may be used in the place of Virginian snake root. Infusion good in vomitings, fluxes, &c.—Dancer, p. 387.

The following account of the virtues of the ad rue or anti-emetic grass is from the manuscript of Mr. Robert Cowan, member of the royal college of physicians in London: "The discovery of its surprising properties was made by Dr. Howell of Jamaica, in checking and restraining black vomit in yellow fever. A strong decoction or infusion of this plant is as much a specific in restraining vomiting in yellow fever, as the Peruvian bark in cure of remittents. It gives out its virtues in water in decoction, or warm infusion, to be taken when cold, when it assumes the colour of Madeira wine. It grows by rivers and marshy lands, rises two and a half feet high, resembles the sedge or bull-rush, the leaf like grass or sedge of a large coarse kind, and has a ridge on the back, which, when dry, cracks into two parts. The roots are much like the serpentaria or snake root, fibrous, bushy, and matted. The seeds are like grass, but placed in little bushes or clusters at the top of the stalk. The first tea-cupful of the decoction represses the vomiting, and the second or third cures. By experiments made on the use of the different parts of the plant, it is found that the strongest is made by boiling the whole plant, cut or sliced, roots, seeds, leaves, and stem, altogether. The quantity two handfuls in three pints boiled to the evaporation of one-third."

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The efficacy of the adrué decoction in repressing continued vomiting was lately experienced by a gentleman in Spanish-Town. There are several species of the cyperus, not unlike the adrué, which may be mistaken for it; and it is worthy of experiment to ascertain whether these other kinds possess the same virtues.

See SEDGES.

AESCHYNOMENE—See BASTARD SENSITIVE.

AGRIMONY—See HEMP AGRIMONY.

AIZOON—See SAMPHIRE.

## AKEE.

Genus doubtful.

CL. 8, OR. 1.—*Octandria monogynia*.

This plant was brought to Jamaica in a slave ship from the coast of Africa, and, having thriven well, has been generally propagated, and succeeds in most parts of the island. The late Dr. Broughton described it particularly in the Hortus Eastensis, from which the following characters are taken :

GEN. CHAR.—Calyx five-leaved and inferior, with concave, acute, ovate, small leaves, persistent and hairy; corolla five-petaled, oblong-lanceolated, acute, hairy, bent at the base, and pressed to the receptacle, alternate with the calyx, and longer; stamina eight short filaments, hairy, inserted at the base of the glandulous receptacle of the germen; antheræ oblong, disposed in an orb, and almost of the same length, round the germen; germen sub-ovate, three-sided and hairy; the styli the length of the germen, cylindrical and hairy; the stigma obtuse; pericarpium, a fleshy capsule, oblong, obtuse on both sides, triangular, trilocular, trivalved, and gaping from the apex; semina, three, orbicular, and glossy, having a rising appendice.

This tree often rises to the height of fifty feet. The trunk is covered with a rough, somewhat brown, bark, hath many long, thick, irregular branches, the lower inclining to the earth. The leaves are pinnated, ovate, lanceolated, full of veins, entire, opposite, smooth, and bright above, about a span long, four or five on each side, with short turgid footstalks. The branches are simply spread, the twigs have many flowers, with each its stalks, spike fashion. The flowers are small, white, and scentless. The fruit is as large as a goose's egg, of a yellow, red, orange, or mixed, colour. The seeds are three, black, as large as a nutmeg, one of which is often abortive. To each seed grows a white substance, exceeding the size of the seed, of the consistence of beef-fat, and which, gently boiled with water, scarce differs from marrow. This, by the inhabitants of Guinea, is served at table alone or mixed with broth or pottage.

The delicacy of the white lobes of this fruit when fried or boiled, and eat as marrow, or sweet-breads, or in soups, renders it well worthy of cultivation. It thrives best in the lowlands. In the mountains it seldom bears fruit, and the north winds are extremely injurious to it. If the tops be blasted or broken off it throws out new and vigorous shoots from the root and stem. When in bearing it has a most beautiful appearance from the contrast of colour in the different parts of the fructification. This plant is easily propagated from the seeds.

## ALDER OR BUTTON TREE.

## CONOCARPUS.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Aggregata*.

This takes its name from two words, signifying cone-fruited.

GEN. CHAR.—Calyx one-leafed, very small, five-parted; corolla five-petalled, converging, or none; stamina five or ten, subulate, erect, anthers globose; germen large, style short; no pericarpium; seeds solitary, obovate, with a membranaceous thick margin, on each side. The flowers are aggregate. There are three species, two of which are natives of Jamaica.

## 1. ERECTA.

*Alni fructu, laurifolia arbor maritima*. Sloane, v. 2; p. 18, t. 161, f. 2. *Foliis oblongis, petiolis brevibus, flaribus in caput conicum collectis*. Browne, p. 159.

This tree grows erect, nearly thirty feet; with lanceolate leaves, which are greasy to the touch. The younger branches are angular. It is esteemed a good fire-wood. Sloane describes it as follows: "It has a trunk as thick as one's thigh, having a smooth whitish or grey bark. The leaves are almost oval, only somewhat broader towards their end; towards the tops of the branches, among the flowers, they are narrow and pointed; of a yellowish green colour. The tops of the twigs are branched, sustaining at first some small roundish heads, no bigger than those of pins, growing larger, hairy, downy, or muscose, of a yellowish green or red colour. They augment to so many round red balls, like alder cones or buttons, sticking to the branch by a quarter of an inch long footstalk, each of which is made up of a great many reddish cornered seeds, sticking on a fungous matter on its outside, and regarding its centre, so that by their means it is rough or echinated. It grows near the sea-side by Passage-Fort and Old-Harbour, among the mangroves. Butterflies swarm very much about this tree."

## 2. RACEMOSA.

*Mangle foliis ellipticis ex adverso nascentibus*. Sloane, v. 2, p. 66, t. 187, f. 1. *Foliis elliptico-ovatis, petiolis biglandulatis, racemis laxis, fructibus sejunctis*. Browne, 159.

Leaves lanceolate-ovate bluntish; fruits segregate.

This is a lofty and branching tree, growing from thirty to forty feet high, sometimes dividing into three or four trunks, close to the ground. The younger branches are shining, red, and opposite. Leaves quite entire, shining, thickish, greasy to the touch, deep green, opposite, three inches long, on a red petiole, with two glands at the top of it. Racemes simple, terminating, commonly by threes. The flowers are small and sessile, and have a slight not unpleasant smell. The petals are whitish. Stamens ten, five alternately shorter, probably sometimes overlooked; (hence Browne only attributes five stamens to the flower). The seed inclosed within a coriaceous pericarp, is composed of two greenish ovate lamellæ, wrapped up into a round body, and involved in a very thin membrane. The lamellæ in the base of the pericarp become a round obtuse, shining body, forming the axis of the seed, destined to put forth the roots: for, when the capsule falls to the ground, it penetrates the crowned apex, and, when the fibres take possession of the soil, it constitutes the rudiment of the future trunk; then the lamellæ increasing in bulk, burst the capsule, and become the radical leaves. Sometimes there are

are two seeds inclosed in the same pericarp. From the above description it appears that this tree, although it agrees in many respects, yet differs very much from the former species. The Spaniards call it *mangle bobo*, or foolish mangle. Sloane calls it the white mangrove.

These trees have no great beauty. They grow in most of the sandy bays and marshes about the island, and may be propagated by seeds, slips, or cuttings. The fruit is drying, binding, and healing; and the bark tans leather well.

ALL-HEAL—See SELF-HEAL.

### ALLIGATOR APPLE OR CORKWOOD

### ANNONA

CL. 13, OR. 7.—*Polyandria polygynia*. NAT. OR.—*Coadunata*.

This plant has also been termed the shining leaved custard apple. The name of the genus can boast of no learned derivation, Linneus having adopted it from an American term for a mess, on account of the fruit of some of the species being so called by the natives.

GEN. CHAR.—Calyx a small three-leaved perianthium; corolla six-petalled, cordate, and sessile, the three alternate-interior ones less; the stamina have scarcely any filaments, the anthers numerous and placed on the receptacle; germen roundish, and placed on a roundish receptacle, no styles; numerous obtuse stigmas covering the whole germ; the pericarpium a large roundish berry, one-celled, with a scaly bark; seeds many, hard, ovate-oblong, placed in a ring, nestling. There are several species indigenous to this island, referred to below; the alligator apple is the

#### FALUSTRIS.

*Annona aquatica foliis laurinis atravirentibus, fructu minore conoide-  
luteo, cortice glabro in areolas distincto.* Sloane. v 2, p. 169, t. 228,  
f. 1. *Uliginosa, foliis nitidis ovatis, fructibus areolatus odoratis.*  
Browne, 256.

Leaves oblong, rather obtuse, smooth; fruits areolate.

This tree rises thirty or forty feet, the trunk as thick as one's middle; the leaves are shaped like those of the bay, smooth, dark green, and hard. The fruit is as big as one's fist, turbinate like a sour sop, hanging by an inch-long foot-stalk, which brings out some of the pulp with it, when ripe, leaving a hole in the fruit. The outward skin is first green, then yellow, smooth, only it hath some checquered lines on its surface, as the custard apple. The seeds lie from the centre to the circumference of the fruit, and are as large as a bean, oblong, almost round, of an ash colour, having a crest running their lengths, lying in an orange-coloured pulp, of an unsavoury taste, but has something of the smell and relish of an orange.—*Sloane*.

It grows in great abundance about the south side lagoons, and on the banks of several rivers. The fruit or apples are large, and of a cold watery quality, esteemed highly narcotic, and even poisonous; but of the latter we have no certain proof. When they are ripe, and drop into the water, the alligators watch their falling, and, at the proper season of the year, are said to subsist chiefly upon them. They have a sweetish taste

and smell; but, perhaps, the crudity and coldness of their juice might make them a sort of poison to the stomach in this climate, where even melons and cucumbers, not duly corrected, will sometimes convulse it. The wood of this tree is so extremely light that it is commonly used by way of cork to stop jugs, bottles, and casks; and it makes excellent floats for fishing nets.—*Long*, p. 832.

See CHERIMOLA—CUSTARD-APPLE—SOUR AND SWEET SOPS.

ALLIGATOR-WOOD—See MUSKWOOD.

ALLSPICE—See PIMENTA.

### ALOES.

### ALOE.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Liliaceæ*.

The derivation of this name is uncertain.

GEN. CHAR.—No calyx; corolla one-petalled, six-cleft, erect and oblong, the tube gibbous, the border spreading and small, with a nectary-bearing bottom; the stamens are subulated filaments, rather surpassing the corolla in length, and inserted into the receptacle; the anthers are oblong and incumbent; the pistillum has an ovate germen, style simple the length of the stamens, stigma obtuse trifid; the pericarpium is an oblong capsule, three-furrowed, three-celled, and three-valved; the seeds are many and angular. There are a great number of species and varieties of the aloe, and it is said the *perfoliata*, the most useful, was brought here from Bermudas. The medical substance known by the name of aloes is the inspissated juice of the *barbadensis* and *succotrina*, which are varieties of the species

#### PERFOLIATA.

*Aloe dioscorid. et aliorum*, &c. Sloane, v. 1, p. 245. *Foliis turgidis ciliato dentatis purpurascens, scapo florifero assurgenti spicato*. Browne, 197. *Sempervive*. Barham, 172.

1 Var. the *barbadensis*, has toothed upright succulent subulate leaves, flowers yellow, hanging down in a thyse.

2 Var. the *succotrina*, has leaves very long and narrow, thorny at the edge, the flowers in spikes.

1. The leaves of the Barbadoes aloe are about four inches broad at their base, and nearly two inches thick, they have a few indentures on their edges, are of a sea-green colour, and, when young, are spotted with white. The flower stem rises near three feet high, and the flowers stand in a slender loose spike, with very short peduncles, and hang downwards; they are of a bright yellow colour, and the stamens stand out beyond the tube.

Of the cultivation and preparation of hepatic or Barbadoes aloes we have the following account, by Millington, in the London Medical Journal, vol. 8. art. 8.

The lands in the vicinity of the sea, that is, from two to three miles, which are rather subject to drought than otherwise, and are so strong and shallow as not to admit of the planting of sugar canes with any prospect of success, are generally found to answer best

best for the aloe plant. The stones, at least the greater ones, are first picked up, and either packed in heaps, upon the most shallow barren spots, or laid round the field as a dry wall. The land is then lightly ploughed and very carefully cleared of all noxious weeds, lined at one foot distance from row to row, and the young plants set like cabbages, about five or six inches from each other. This regular mode of lining and setting the plants is practised only by the most exact planters, in order to facilitate the weeding of them by the hand very frequently; because, if they are not kept perfectly clean and free from weeds, the produce will be but very small. They will bear being planted in any season of the year, even in the driest, as they will live on the surface of the earth for many weeks without a drop of rain. The most general time, however, of planting them is from April to June. In the March following, the labourers carry a parcel of tubs and jars into the field, and each takes a slip or breadth of it, and begins by laying hold of a bunch of the blades, as much as he can conveniently grasp with one hand, while, with the other, he cuts it just above the surface of the earth, as quickly as possible, that the juice may not be wasted, and then places the blades in the tub, bunch by bunch. When the first tub is thus packed quite full, a second is begun, (each labourer having two) and, by the time the second is filled, all the juice is generally drained out of the blades in the first tub. The blades are then lightly taken out, and thrown over the land by way of manure, and the juice is poured into a jar. The tub is then filled again with blades, and so alternately until the labourer has produced his jar full, or about four gallons and a half of juice, which is often done in six or seven hours, and he has then the remainder of the day to himself, it being his employer's interest to get each day's operation as quickly done as possible. It may be observed, that, although aloes are often cut in nine, ten, or twelve, months after being planted, they are not in perfection till the second or third year, and that they will be productive for a length of time, say ten or twelve years, or even for a much longer time, if good dung, or manure of any kind, is strewed over the field once in three or four years, or oftener, if convenient.

The aloe juice will keep for several weeks without injury. It is therefore not boiled until a sufficient quantity is procured to make it an object for the boiling-house. In the large way three boilers, either of iron or of copper, are placed to one fire; though some have but two, and the small planters only one. The boilers are filled with the juice; and, as it ripens, or becomes more inspissated, by a constant but regular fire, it is ladled forward from boiler to boiler, and fresh juice is added to that farthest from the fire, till the juice in that nearest to the fire, (by much the smallest of the three, and commonly called by the name of *tache*, as in the manufactory of sugar) becomes of a proper consistency to be skipped or ladled out into gourds, or other small vessels, used for its final reception. The proper time to skip or ladle it out of the *tache* is when it is arrived at what is termed a resin height, or when it cuts freely, or in thin flakes, from the edges of a small wooden slice, that is dipped from time to time into the *tache* for that purpose. A little lime water is used by some aloe boilers, during the process, when the ebullition is too great.

As to the sun-dried aloes (which are most approved for medicinal purposes) very little is made in Barbadoes. The process is however very simple, though extremely tedious. The raw juice is either put into bladders, left quite open at top, and suspended in the sun, or in broad shallow trays of wood, pewter, or tin, exposed also to the sun, every dry day, until all the fluid parts are exhaled, and a perfect resin formed, which is then packed up for use, or for exportation.

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The following account of preparing aloes in Jamaica is given by Dr. Wright, in the same volume of the Medical Journal, art. 1: "The plant is pulled up by the roots, and carefully cleaned from the earth or other impurities. It is then sliced or cut in pieces into small hand-baskets or nets. These nets or baskets are put into large iron boilers with water, and boiled for ten minutes, when they are taken out, and fresh parcels supplied till the liquor is strong and black. At this period the liquor is thrown through a strainer into a deep vat, narrow at bottom, to cool, and to deposit its feculent parts. Next day the clear liquor is drawn off by a cock, and again committed to the large iron vessel. At first it is boiled briskly; but, towards the end, evaporation is slow, and requires constantly stirring to prevent burning. When it becomes of the consistence of honey it is poured into gourds or calabashes for sale. This hardens by age."

2. The leaves of the true succotrine aloe, from whence the best sort for use in medicine is procured, are long, narrow, and succulent, coming out without any order, and form large heads. The stalks grow three or four feet high, and have two, three, and sometimes four, of these heads, branching out from it: the lower leaves spread out on every side, but the upper leaves turn inward toward the centre; the flowers grow in long spikes, upon stalks about two feet high, each standing on a pretty long foot-stalk; they are of a bright red colour, tipped with green. The island of Zocatra or Socotora, in the Straights of Babelmandel, being formerly most famous for the preparation of the extract, that of the best quality has the name of Succotrine aloe. It is of a yellowish brown colour, approaching to purple, and, when reduced to powder, is a sort of gold colour. The hepatic aloe of Barbadoes is darker than the succotrine, and more bitter and nauseous.

*Aloe caballina*, fetid caballine, or horse aloes, is supposed to be a coarser sort, obtained from the same species with the foregoing; according to others it is the produce of the disticha. It is chiefly distinguished by its strong rank smell.

All the different kinds are gum resins, which contain more gummous than resinous parts. Water, when of a boiling heat, dissolves all the soluble parts of aloes; but, if let stand till it grows cold, it lets drop most of its resin. A strong spirit dissolves and keeps suspended almost the whole of aloes, though it contains such a large proportion of gummous parts; hence it is evident that aloes contain some principle, saline or other, which renders water capable of dissolving resin, and spirit capable of dissolving gum.

Aloes is a stimulating stomachic purge, which, given in a small quantity, operates mildly by stool; but, in large doses, acts roughly, and often occasions an irritation about the anus, and sometimes a discharge of blood. It is a good opening medicine to people of a lax habit, or who live a sedentary life; and to those whose stomach or bowels are loaded with phlegm or mucus, or who are troubled with worms, or are debilitated, because at the same time that it carries off those viscid humours which pall the appetite, and overload the intestines, it serves as a strengthener and bracer. In small doses, repeated from time to time, it not only cleanses the *primæ viæ*, but likewise tends to promote the menstrual discharge in women; and therefore it is frequently employed in chlorosis, or where the menstrua are obstructed. It is a good stomachic purge, and is given in all cases where such a one is wanted, but it is looked upon as a heating medicine, and not proper in bilious habits, or where there is much heat or fever; and its continued use is apt to bring on the piles. It is given in substance from five grains to



a scruple, larger doses sometimes bring on troublesome symptoms. As it is a slow working purge it is generally taken at bed-time, and it operates next day.

With regard to this, as well as all other resinous purges, it ought to be observed, that, when they are given in substance, without any mixture, they are apt to adhere to the coats of the intestines, and to occasion griping and uneasiness. The substances which are most used for this purpose are, a small quantity of the fixed alkaline salts; soap; the yolk of an egg; and gummous vegetable extracts. Mr Barton alledges, in his treatise on the manufacture of drugs, that, by triturating aloes with a small quantity of alkaline salts, its tenacity was more effectually destroyed than by any other thing he tried: that castile soap and the yolk of an egg answered best, next to it; that manna, sugar, and honey, were far inferior to them; and that gummous or mucous vegetable extracts, such as the extracts of gentian or of liquorice root, triturated with the aloes, in the proportion of one part of the extract to two of the aloes, and then made up into pills, with a sufficient quantity of syrup, destroyed the viscosity of the aloes, and rendered its operation mild.—*Ency. Brit.*

Purgatives are undoubtedly useful in the expulsion of worms; and among them the juice of aloes, says Grainger, justly claims the pre-eminence. On this passage Dr. Wright observes that a tea-spoonful of the juice of the fresh leaves of the common aloes is very good; but, as oil is poisonous to all insects, especially to *lumbricales*, or earth-worm, the castor-oil is to be preferred.

This is the common aloetic plant which aloes is made from, and is so well known in America, where it grows in great plenty, that there needs no particular description of it. It is common for planters to give their children of its thick slimy juice, for worms. Aloes, which is only the condensed or inspissated juice of this plant, purges and fortifies the stomach, and is good against crude humours, opens obstructions, and cures surfeits from over eating and drinking; and, if dissolved in water, and inspissated again, it fortifies more and purges less. It preserves dead bodies, heals and cleanses old sores. The Indians have a medicine, made of myrrh and aloes, called *moceber*, which I have used with wonderful success in cleansing old ulcers, and it will also incarnate and heal them if the very bones were bare, whereas other greasy medicines would foul the bone; it also destroys maggots or worms in sores, which are very apt to breed in these hot climates. The juice, drank with milk, heals ulcers in the kidneys or bladder, and kills worms in man or beast. You must forbear giving aloetic medicines to those troubled with the bleeding piles, or overflowing of the menses, to those that spit or vomit blood, or to women with child. Aloe consists of two parts, resin and saline; the one dissolves in common water, the other will not but in spirit of wine.—*Barham, 172.*

As the drossy resinous parts of aloes is not soluble in water, it has been found, when combined with other mixtures, an excellent preservative to ships' bottoms against the worm, and was first applied to this use by the Indians. The ships trading in the East and West-Indies are particularly subject to the annoyance of this worm, which frequently burrows through all the planks that lie below the surface, especially in harbours. The result of several experiments, tried by a person at Bermudas, upon different sorts of wood, proves, that a mixture of one ounce of aloes, allowed to two superficial square feet of plank, is the just proportion. There are various coats with which it may be incorporated:

corporated: One of the best is six pounds of pitch, one pound of Spanish brown or whiting, and one part of oil; or the like proportions of turpentine, Spanish brown, and tallow, may be used. Such a coat, incorporated with aloes, will preserve a ship's bottom for eight months, provided it is made tenacious and binding, and is not rubbed off by any accident. About twelve pounds are sufficient for a vessel of fifty tons burthen, and so in proportion; according to which, about three-hundred pound will be found enough for a first-rate man of war.

In preparing the aloes to be more effectual for this purpose, a large proportion of water may be mixed with the juice when set on to boil, *viz.* two quarts of water to every gallon of juice; and, after sufficient boiling, or when the water is thoroughly impregnated, it should be shifted into any commodious vessel; suffered to stand for twelve hours, and the water then poured off: by this process the soluble part or gum, which is of no use in the operation, will be extracted, and what remains in sediment is the dross and resin, which, being left to remain until it is pretty well dried and brought to consistence, exposed to the air and sun, will be fit for use.

It is but justice to this commodity to recite the effects of one experiment, tried by the person before-mentioned. He took several pieces of oak, cedar, and mahogany, plank, of two feet in breadth, and four feet in length, and, with particular distinct marks, to prevent mistakes, put on different coats or compositions, some with and some without aloes mixture: these were suffered to lie under the sea-water for eight months; and, upon taking them up, he found that, where the aloes had made part of the composition, there were few impressions made; one piece, in particular, was as fresh, sound, and untouched, as on the day when it was put in; this had been besmeared with turpentine, tallow, Spanish brown, and aloes; but the other pieces, which had none of the aloetic mixture, were perforated and eaten into a honeycomb. The use, therefore, of this ingredient would certainly produce a saving of many thousand pounds per annum, both to the merchants and the crown. It is the bitter, nauseous, acrimony, which resides in the resinous part, that renders it a very proper defence against every species of insects; and this part, being indissoluble in water, will adhere to the plank unpaired, so long as the composition lasts with which it is blended. Neither an extravagance of price, nor apprehension of a scarcity, need be any objection to the general use of it. The savannas and other barren places in Jamaica, are capable of producing much more than could be employed by all the shipping belonging to the British dominions; and, was it encouraged by a regular demand, Bermudas and other colonies would enter upon the cultivation, so that the price would probably never rise high.

The same composition may be used with great advantage in Jamaica, for preserving the rafters and other timbers belonging to the floors and roofs of buildings, from that destructive insect the wood-ant; nor would a preparation of the aloes be less efficacious in securing books from the depredations of the scarabæus, which, in its reptile state, is a great enemy to all that are newly bound. If, in binding books intended for this island, and other parts of the West-Indies, a small quantity of the aloes tincture, made by a solution in spirits of wine, was mixed up with the binder's paste, it would effectually prevent the attacks of this insect.—*Long, p. 708.*

An aquatic solution of hepatic aloes preserves young plants from destruction by insects, and also dead animals and vegetables from putrefaction; which renders it of great use in the cabinets of naturalists. The spirituous extract, however, is best for the purpose, though, in this respect, it is inferior to that of cantharides, prepared by infusing two grains in one ounce of spirits, which has been found to be so effectual in the extirpation

pation of bugs.\* Pærner asserts, that a simple decoction of aloes communicates a fine brown colour to wool. Fabroni, of Florence, has extracted a beautiful violet colour, which resists the acids and alkalis, from the juice of the fresh leaves of the aloe exposed to the air by degrees. The liquid first becomes red, and, at the end of a certain period, turns to a beautiful purple violet, which adheres to silk by simple immersion, without the aid of acids.

Upon the whole, as the aloe is so useful and so hardy a plant, growing in the poorest soils and in the driest seasons, while the manufacture is so simple and so cheap, it is to be regretted that its cultivation has not been more attended to in this island.

See BASTARD ALOE.

ALPINIA—See WILD GINGER.

ALSINES—See CHICKWEED.

ALYSSON

ALYSSUM.

CL. 15, OR. 1.—*Tetradynamia siliculosa.* NAT. OR.—*Siliquosæ.*

This name comes from a Greek word, signifying madness, as the herb was believed to have the virtue of curing madness.

GEN. CHAR.—Calyx oblong, four-leaved; corolla four-petalled, cruciform, with the claws the length of the calyx; the stamens are six, the length of the calyx, two rather shorter and denticulated; anthers erect and expanding; the pistillum has a sub-ovate germen, style simple; the pericarpium a sub-globular emarginate silicle, with a bilocular stylus, having an elliptic partition; the seeds are few, orbicular, and affixed to filiform receptacles. Two species of this genus have been introduced.

1. IKCANUM.

Stem erect, leaves lanceolate, hoary, entire, flowers in corymbs, petals bifid.

Hoary madwort grows to the height of two feet, having woody stalks, which divide into several branches toward the top. At the extremity of every shoot the flowers are produced in round bunches, which are small and white. The silicle is entire, oval, and full of brown seeds.

2. HALIMIFOLIUM.

Stems procumbent, perennial, leaves lance-linear, acute, quite entire.

Sweet madwort spreads itself upon the ground. The root is long, white, and woody; stalks numerous, seven or eight inches long, rough, and of a greyish green colour. The leaves are oblong, narrow, punctated, and very rough to the touch. At the extremities of its branches it produces very pretty tufts of small yellowish white flowers. Both these plants are propagated from seeds. The halimifolium grows very luxuriantly in this island in almost any soil or situation.

D

AMBROMA.

\* M. Socnloff, in the Transactions of the Imperial Academy of Sciences at Petersburg, says, that he has repeatedly experienced that nothing more speedily or effectually destroys bugs than the only pickle that remains in casks in which herrings have been packed.

## AMBROMA.

## ABROMA

CL. 18. OR. 2.—*Polyadelphia dodecandria* NAT. OR.—*Columnifera*.

This takes its name from a Greek word signifying not fit for food.

GEN. CHAR.—Calyx five-leaved; corolla five-petalled, claws ob-ovate, arched, inserted into the base of the nectary, which is short, pitcher shaped, and divided into five segments; stamina five, membranaceous, very small, growing on the nectary; anthers on each filament three, twin, kidney-form; the pistillum has a sub-cylindrical germen, styles five, subulate, approximating, with acute stigmas; capsule ovate, membranaceous, veined, five-winged, five-beaked, five-celled, gaping at the top into five parts; partitions folded; seeds many, sub-ovate; no receptacle. There are two species, one of which, the following, was introduced by Mr. East, in 1791, but is at present in a very sickly state.

## ANGUSTA.

Leaves cordate or angular, sharply serrulate.

The *maple leaved ambroma* is a tree with a straight trunk, yielding a gum when cut, and filled with a white pith like the elder. Some of the leaves are heart-shaped and acuminate; others angular, having five or seven lobes, which are acute, and the anterior ones most produced; they are all veined, alternate, green on both sides, but paler underneath, and the petioles are round. The whole plant is covered with stiff, whitish, shining, decumbent, bristles, scarcely visible to the naked eye, easily separating, and sticking to the hands, but harmless. The peduncles are generally bifid and bear two flowers. There is one stipule on each side to every petiole, but four at the division of the peduncles, lanceolate and acute. The flower nods, is elegant, but has little smell, and is dark purple. It is propagated by cuttings.

AMBROSIA—See OAK OF CAPPADOCIA.

AMELLUS—See STAR-WORT.

AMERICAN HONEYSUCKLE—See HONEYSUCKLE.

AMERICAN NUTMEG—See NUTMEG.

AMERIMNON—See JAMAICA EBONY.

## No English Name.

## AMMANNIA

CL. 4. OR. 1.—*Tetrandria monogynia* NAT. OR.—*Calycanthemæ*.

This was so named by Houston, in honour of John Ammann, professor of botany at Petersburg.

GEN. CHAR.—The calyx is an oblong, erect, bell-shaped, perianthium, with eight striæ, quadrangulated, eight toothed, and persistent; the corolla is either wanting or consists of four ovate expanding petals, inserted in the calyx; the stamina are four bristly filaments the length of the calyx; the antheræ are didymous; the pistillum has a large ovate germen above; the styles simple and very short, the stigma headed; the pericarpium is a roundish four-celled capsule, covered by the calyx; the seeds are numerous and small. There are two species both natives of Jamaica:

I. LATIFOLIA.

## 1. LATIFOLIA.

*Aparines folio anomala vasculo seminali rotundo multa semina minutissima continente.* Sloane, v. 1, p. 44, t. 7, f. 4. *Foliis sessilibus lanceolatis auritis quasi amplexantibus, oppositis seu verticillatis; floribus ternatis ad alas.* Browne, p. 148.

Leaves half-stem-clasping, stalk square, branches erect.

The root is annual; stem obtuse-angled, the alternate sides convex. Flower verticillate, three on each side, sessile. Alternate teeth of the calyx convergent; the style shorter than the germ; the petals four white ones or none. It grows in moist places. Sloane says the branches are woody with smooth bark, about a foot and a half long, cornered. The leaves placed at the joints, two always opposite, about an inch and a half long, one-eighth of an inch broad at the base, decreasing to a point, they are smooth, equal on the edges, and carinated; *ex alis foliorum* comes a roundish small body, a little prickly or hairy at the top, which augments till it is as big as a pepper corn, as it were crowned on top, containing a capsule full of small seed, sticking to a body in the centre.

This plant is Browne's *Isnardia*, which, he says is pretty common about the Ferry, and that it grows generally by a simple stalk when young, but throws out a few branches the second year, and seldom rises above twenty-four or thirty inches in height; the stem is commonly quadrangular, and furnished with long lanceolated leaves, without footstalks, whose lobes shoot obtusely backwards on either side, by which they seem to encompass the main stalk; they are disposed in an opposite or ternate order, and embrace the flowers at their insertions, but there are seldom more than three together, and always joined by short footstalks to a common pedestal, fixed close to the stalk in the bosom of every leaf.

## 2. SANGUINOLENTA.

Leaves half-stem-clasping, cordate at the base, flowers sub-peduncled, eight-stamened, petal bearing.—*Sw. Pro.* 33.

Both species are propagated from seeds.

See HEDYOTIS.

ANACAMPSEROS—See PURSLANE.

ANANA—See PINE-APPLE.

ANCHOACA—See MALLOWS.

## ANCHOVY PEAR.

## GRIAS.

CL. 13, OR. 1.—*Polyandria monogynia* NAT. OR.—*Doubtful*.

The generic name is taken from a plant in Apuleius.

GEN. CHAR.—Calyx a one-leaved coriaceous perianthium, cup-shaped, the mouth having four blunt clefts, finally lacerated; corolla four-petaled, roundish, concave, coriaceous; the stamina are numerous setaceous filaments, longer than the corolla, and inserted into the square receptacle, united at the base in a five-fold row, bent in, inner ones shortest, roundish anthers; the pistillum has a somewhat depressed

depressed germen, immersed in the calyx, no style, the stigma thickish, four-cornered, hollowed out crosswise; the pericarpium a large drupe, one-celled, acuminate at the base and tip, crowned with the calyx; the seed is a nucleus scored with eight furrows. There is only one species, which is a native of Jamaica:

## CAULIFLORA.

*Palmis affinis malus persica maxima caudice non ramoso, foliis longissimis, flore tetrapetalo pallide luteo, fructu ex arboris trunco prodeunte* Sloane, v. 2, p. 122, t. 216 & 217. *Foliis tripedalibus obovatis, floribus per caulem et ramos sparsis.* Browne, p. 245.

This has an undivided trunk, no bigger than one's leg, covered with a grey bark, tapering towards the top, rising to twenty feet high, having near its top the vestigia of several leaves which have formerly dropped off. The leaves come out only round near the top for half a foot in length, they have no foot-stalks, are two and a half feet long and six inches broad in the middle, where broadest; beginning very narrow, they grow wider in the middle, and thence decrease, ending bluntly. They have one middle rib and several transverse ones, they shine, and are smooth and thin. Two or three feet below the top, along the trunk, come out the flowers, without almost any footstalk, sometimes singly sometimes in tufts; they are at first a round knob or button, which afterwards opens into a tetrapetalous flower, the petals being thick, pale yellow, and full of a great many stamina, smelling very sweet, to which follows a fruit like to the mammee sapota in bigness, shape, colour, &c. It grows going to Sixteen-Mile-Walk, on the river-side, and in several other places.—*Sloane.*

This tree frequently grows to the height of fifty feet. Branches at the top simple, short, or none. The uprightness of the growth, and the largeness of the leaves give it a very elegant appearance. The fruit is about the size of an alligator's egg, and like it in shape, only a little more acute at one end, and of a brown russet colour; when pickled it resembles the mango. This tree is frequent in many parts of Jamaica, and grows generally in low moist bottoms, or shallow waters. The seeds grow very readily wherever they meet with a sufficient quantity of moisture, and propagate so thick that they are frequently found formed into thickets or large clusters.—*Barham & Browne.*

## No English Name.

## ANDROMEDA.

CL. 10, OR. 1.—*Decandria monogynia.*NAT. OR. *Uncertain.*

This plant is named from the daughter of Cepheus and Cassiope, who was rescued from a sea-monster by Perseus.

GEN. CHAR.—Calyx five-parted, acute, small, coloured, permanent; corolla monopetalous, campanulate, five-clefted, clefts reflex; stamina shorter than the corolla and scarcely fixed to it; anthers two-horned, nodding; the pistillum has a roundish germen, style cylindric, longer than the stamens, permanent; stigma obtuse; capsule roundish, five-cornered, five-celled, five-valved, opening at the corners, partitions contrary; seeds very many, roundish, shining. There are three species noticed by Swartz as natives of Jamaica, as follow:

## 1. JAMAICENSIS.

## 1. JAMAICENSIS.

Peduncles aggregate, corollas ovate transparent, leaves alternate broad-lanceolate, obtuse, entire, beneath ash-coloured and membranaceous.

## 2. FASCICULATA.

Peduncles aggregate, leaves alternate, ovate-lanceolate, obtuse, slightly crenulate, coriaceous.

## 3. OCTANDRA.

Peduncles aggregate, corollas cylindrical, having four clefts, with only eight stamina, leaves alternate, ovate lanceolate, very entire, membranaceous.

ANGELICA TREE—*See* GALAPEE.

ANGOLA PEA—*See* PIGEON PEA.

## ANISEED.

## PIMPINELLA.

CL. 5, OR. 2.—*Pentandria digynia.*

NAT. OR.—*Umbelliferae.*

GEN. CHAR.—The general umbel is thin and plano-patent, the partial ones similar, neither has any involucre; the perianthia are scarcely observable; the general corolla is uniform; the single flowers consist each of five oval inflex petals; the stamina are simple filaments, anthers roundish; germen under the cup, styles reflex, stigmata obtuse; fruit naked, of a roundish figure, striated, and separable into two parts; the seeds are two, roundish, convex, striated on one side, and plane on the other.

## ANISUM.

Root leaves trifid gashed.

The root is oblong, slender, and white; the radical leaves stand on long pedicles, and are simple, small, roundish, foliola, crenated at the extremities, of a pale green, and strong smell; the stalk is round, hairy, striated, ramose, and so weak that it is scarcely able to support itself erect; the leaves on it are narrower and more deeply cut in all the edges; the umbels are very large, the flowers of a yellowish white. It is a native of Egypt and Syria, and was introduced into the botanic garden at Bath many years ago. The roots have a grateful, warm, pungent, taste, and are considered an excellent stomachic. The seeds have an aromatic smell, and a pleasant warm taste, accompanied with a degree of sweetness. They are useful in cold flatulent disorders, where tenacious phlegm abounds, and in the gripes to which children are subject, by boiling them in a small quantity of water, which affords a stronger infusion than by decoction, and giving it in tea-spoon-fulls. Frederic Hoffman strongly recommends them in weakness of the stomach, diarrhoeas, and for strengthening the tone of the viscera in general.

Infused in water the seeds impart a little of their smell, but scarcely any taste. In distillation they give out the whole of their taste. Along with the water there arises an essential

essential oil, to the quantity of an ounce or more from three pounds. They also yield an oil upon expression.

The essential oil obtained from aniseeds is the only officinal preparation in the Pharmacopœia; it is grateful to the stomach, and may be taken in a dose of twenty drops. In diseases of the breast the oil is preferred, but in flatulencies and colics the seeds in substance are said to be more effectual. It is asserted that the oil is a poison to pigeons.

ANTHEMIS—See OX-EYE.

ANTHOLYZA—See ETHIOPIAN ANTHOLYZA.

ANTIDISMA—See MAJOR-BITTER.

### ANTIDOTE COCOON.

### FEUILLEA.

CL. 22, OR. 5.—*Diœcia pentandria*.

NAT. OR.—*Cucurbitaceæ*.

This is named in honour of Lewis Feuillée, a French Franciscan monk, who travelled in Peru.

GEN. CHAR.—The male calyx is bell-shaped, half five-cleft; the corolla is also half five-cleft and wheel-shaped; there are five stamina with twin roundish anthers, and the nectarium consists of five filaments, connivent or closing, placed alternately with the stamina: the female calyx and corolla as in the male, but with a green germ at the base; stigmas heart-shaped, styles three or five, and the fruit is a large trilocular apple, with a hard bark; the seeds generally twelve, flattened and orbicular. There are two species, one a native of the East the other of the West Indies, but it is doubtful whether they be distinct. Swartz affirms that they are not as much as varieties.

### CORDIFOLIA.

*Ghandiroba vel nhandiroba brasiliensis*. Sloane, v. 1; p. 200.

*Foliis crassioribus glabris, quandoque cordatis, quandoque trilobis*.

Browne, p. 374.

Leaves heart-shaped angular.

The stem is suffrutescent at bottom, divided at top, with herbaceous branches, climbing frequently to the tops of trees, roundish and very smooth. Leaves petioled, alternate, usually cordate, when more adult, cordate lobed, the lower ones three-lobed, the lobes angular, thick, nerved, very smooth on both sides. Flowers racemed, dusky, yellow. Racemes in the male divaricating, loose, the subdivisions almost upright, alternate, many-flowered; flowers pedicelled. Calyx five-parted, the parts are convex, spreading, ovate, dusky. Filaments converging at the base, reflex, club-shaped, gibbous, with a sort of head at the end to which the anthers are fastened; these are ovate, open longitudinally in the middle, and are whitish. The five other threads forming the nectary are yellow.

Barham gives this plant its old name of *nhandiroba*, or *ghandiroba*, and says, "The first time I met with this plant was in St. Thomas in the Vale, in that part called Sixteen-Mile Walk, in Jamaica; where I saw it climbing and running up to the tops of very high trees. It happened to have its fruit upon it. Its leaf very much resembles the



the English ivy leaf; but its fruit is like a green calabash, only it has a circular black line round it, and two or three warts, or little knobs; the inside of the shell is full of white flattish beans, inclosed in a white membranous substance; and, when thorough ripe, the fruit turns brownish as a ripe calabash, and the beans or nuts are then of a lightish-brown colour, and have a thin hard crust, in which is a whitish kernel, full of oil, and excessive bitter. The nuts or beans, which are generally ten or twelve in a shell, are so close and compressed, that when I have taken them out, I never could place them so again as to make the shell contain them.

"Piso saith, that he has seen whole families in Brazil, that have had violent aches and pains, got by the night-air, who have been cured with the oil of these nuts, which they may easily have growing in great plenty in most parts of America. It cannot be used in victuals, being so excessive bitter. A French gentleman some years past, brought me from Peru some of these nuts, and asked me if I knew what they were? I did not satisfy him whether I knew them, but asked him what the Spaniards called them, and what use they put them to? He told me, that the Spaniards called them *avilla*; and that they were worth their weight in gold to expel poison, and wished I could find them growing in Jamaica; which they do in great plenty, and the negroes employed to get them for me called them *sabo*."—*Barham*, p. 113.

This plant is frequent in the mountains, and generally found climbing among the tallest trees in the woods. It bears a pod which contains several broad, flat, seeds, of a reddish colour, when ripe. The seeds are largely impregnated with an oil, which is extracted by pressing, and burnt in lamps. The negroes burn the seeds themselves. They fasten a number of them upon a skewer, and, setting fire to the uppermost, it descends very gradually to the bottom. They are extremely bitter, and, when grated and infused in rum, or other spirits, a small dose opens the body and provokes an appetite. The infusion is also made with Madeira wine, and taken to relieve pains in the stomach. The oil gives a clear fine light when burnt in lamps, and emits no disagreeable smell. It is easily cultivated, by planting the seed at the foot of a tree or pole, it bears very luxuriantly.—*Long*, p. 718.

The kernel sliced and infused with orange-peel and a little wild cinnamon, in rum, an excellent bitter and opening medicine: Infused in water and rum, good in all cold poisons.—*Dancer*, p. 387, 391.

The seeds are said to be good for a person going into a dropsy, or a swelling of the face, feet, &c. and the following is the receipt:—Take eight or ten of the kernels, scrape and bruise them fine in a mortar; put the same into a bottle, pouring thereon a pint of old rum or brandy and the like quantity of water: let it remain in the sun two or three days, shaking the bottle frequently: take a wine-glass full every morning, fasting, and using moderate exercise before breakfast.

An anonymous writer, in the *Columbian Magazine*, for July, 1798, who gives the foregoing receipt, states "that a young girl had been pronounced by the medical gentlemen in Spanish-Town in a dropsical state, and every thing administered as they thought necessary in such a case, but all in vain; for, on my subsequent removal to Kingston, I found the swelling much increased in her face, legs, and thighs, with a puffiness in her belly. A planter from Above-Rocks breakfasted with me; I called the girl to get some water; he was alarmed on seeing her condition, and advised the use of  
of

of the cocoon or antidote, observing that he had made a perfect cure of a girl in the same state. I proceeded according to his directions, and with the like success; it is now eighteen months since, and, thanks be to God, she is now in perfect health. I therefore think myself in duty bound to publish the same for the benefit of my fellow-creatures."

## APPLE.

## PYRUS.

CL. 12, OR. 4.—*Icosandria, pentagynia*. NAT. OR.—*Pomaceæ*.

The generic name is from a Greek word for fire, as the pear or fruit draws up to a point like a flame.

GEN. CHAR.—The calyx is quinquefid; there are five petals; the fruit is inferior, quinquelocular, and polyspermous. The tree grows twenty or thirty feet high, having oval serrated leaves, and sessile umbels of whitish red flowers, succeeded by large roundish and oblong fruit, concave at the base. There are a great many species and varieties, but none yet introduced thrive well in Jamaica; they degenerate and become dwarfish and sour. The best grows in St. Andrew's and Port-Royal mountains, but the trees do not bear many fruit, shooting too much into wood. The fruit has seldom any seeds.

See QUINCE.

APRICOT—See under CHERRY, BIRD.

ARABIAN COSTUS—See CARDAMON.

## ARBOR VITÆ.

## THUJA.

CL. 21, OR. 8.—*Monœcia monodelphia*. NAT. OR.—*Conniferæ*.

GEN. CHAR.—The calyx of the male flower is a squammæ of an amentum; there is no corolla; the stamina are four, scarcely manifest: In the female flower the calyx is a squammæ of the strobilus, and contains two flowers; there is no corolla; the pistil has a small germen, awl-shaped style, simple stigma; and the seed is surrounded with a membranaceous ala. Two species have been introduced.

## I. OCCIDENTALIS.

Strobiles smooth with blunt scales, branches spreading.

This, the common arbor vitæ, has a spreading root, and the tree grows to a moderate height, it was introduced and planted in the botanic garden, Bath, by Dr. Clarke. It has a strong woody trunk, erect, and knotty, rising forty feet or more; the bark, while young, is smooth, and of a dark brown colour, but, as it advances in age, it becomes cracked. The wood is reddish, firm, and resinous. The branches are produced irregularly on every side, spreading nearly horizontal, and the young slender shoots frequently hang downward, thinly garnished with leaves; so that when the trees are grown large they make but an indifferent appearance. The young branches are flat, and their small leaves lie imbricated over each other like the scales of a fish; the flowers are produced from the sides of the young branches, pretty near to the foot-stalk, they are

are small and yellowish; the male flowers grow in oblong catkins, and between these the female flowers are collected in form of cones. When the former have shed their farina, they soon after drop off; but the female flowers are succeeded by oblong cones, having obtuse smooth scales, containing one or two oblong seeds. The leaves of this tree, which is a native of North-America, are divided into many parts, oblong, compressed, and squammosa, they are of a bright green, and have a rank oily scent, when bruised. There are three other species of this genus, *orientalis*, *aphylla*, and *dolabrata*. All of them are propagated by seeds, layers, and cuttings.

This plant grows naturally in Canada in swamps and marshes, and is used, according to professor Kalm, for many medicinal purposes. It is much extolled for rheumatic pains. The fresh leaves are pounded in a mortar, and mixed with hog's grease, or any other; this is boiled together, till it becomes a salve, which is spread on linen, and applied to the part where the pain is. This salve gives certain relief in a short time.

Against violent pains which move up and down, and sometimes spread all over the body, they recommend four-fifths of the leaves of polypody (*polypodium fronde pin-nata*, &c.) and one-fifth of the cones of the *thuja occidentalis*, reduced separately to a coarse powder, and afterwards mixed. With this powder, and milk-warm water, a poultice is made, spread upon linen, and wrapt round the body; but a cloth is commonly laid between it and the body, otherwise it would burn and scorch the skin.

The decoction of the leaves is used as a remedy for the cough; and they use this at Saratoga for the intermitting fever. The wood is very durable, and used in buildings of all kinds, as well as cabinet-makers work.

## 2. ORIENTALIS.

Strobiles squarrose with sharp scales, branches erect.

This is a native of China, and rises to a considerable height. Its branches grow closer together than the other, and are much better adorned with leaves, which are of a brighter green colour, so make a much better appearance than the other, and being very hardy, it is esteemed preferable to most of the evergreen trees with small leaves in gardens. The branches of this tree cross each other at right angles. The leaves are flat; but their divisions are slender, and the scales are smaller and lie closer over each other than those of the *occidentalis*. The cones are also much larger, and of a beautiful grey colour; their scales end in acute reflexed points. These trees are propagated by seeds, layers, or cuttings. One of the *orientalis*, it is believed the only one in Jamaica, grows on Mr. Wiles's mountain, in Liguanea.

ARCHANGEL—See HEMP-AGRIMONY.

ARCTOTIS—See MARIGOLD.

No English Name.

ARDISIA.

CL. 5, OR. 1.—*Pentandria monogynia*.

GEN. CHAR.—Calyx a one-leafed perianthium, five-cleft, clefts subulate, upright, coloured, permanent; corolla one-petalled, five-parted, tube short; filaments subulate, upright; anthers acute, bifid at the base, converging at top round the style; germen superior, ovate, very small; style subulate and longer than the stamens, stigma simple; the pericarpium a roundish berry; seed single, roundish,

roundish, covered with a hard brittle bark, like a nut. There are several species, two of which have been found in this island.

## 1. TINIFOLIA.

*Jasminum forte, arboreum, foliis laurinis, obtusis latioribus atrovi-  
rentibus, flore pentapetalo racemosa purpurea reflexo.* Sloane, v. 2;  
p. 98.

Flowers paniced, leaves elliptic, entire, nerved, stem arboreous.

This rises about thirty feet high, having a clay or ash coloured smooth bark; its twigs are set with smooth dark-green leaves, four inches long and two broad in the middle, having an eminent midrib and footstalks a quarter of an inch long. The flowers are purple and reflexed. It grows in Liguanea mountains.—*Sloane*.

## 2. CORIACEA.

Flowers paniced, leaves oblong, entire, veinless coriaceous. *Sw. Pr.* 48.

No English Name.

ARGYTHAMNIA.

CL. 21, OR. 4.—*Monœcia tetrandria.* NAT. OR.—*Tricocca.*

The name is derived from two Greek words, signifying a little white shrub.

GEN. CHAR.—Male calyx four lanceolate leaves; corolla four petals lanceolate-ovate, ciliate on the margin, shorter than the calyx; nectary four glands between the petals, roundish, depressed; filaments four, longer than the petals, approximated at the base, dilated, anthers simple; the pistillum the rudiment of the style: the female in the same raceme under the male, calyx a five-leaved perianthium, leaflets lanceolate; no corolla; germen ovate, somewhat three-cornered; styles three, spreading, half two-cleft, each of the clefts bifid; stigmas lacèrate; the pericarpium a tricoccous capsule, three-celled, six-valved; the seeds solitary and roundish. There is only one species:

## CANDICANS.

*Ricino affinis odorifera fruticosa minor, teucarii folio, fructu tricocca  
dilute purpureo.* Sloane, v. 1, p. 133, t. 86, f. 3. *Fruticosa, to-  
ta albida; foliis oblongis, nervis paucioribus arcuatis.* Browne, 338.

This shrub seldom rises above five feet in height; and the trunk and branches are covered with a whitish bark. The branches are four or five feet long, sometimes rising upward, and at other times lying along the surface of the earth. The twigs have leaves at their ends, standing round them, about an inch in breadth, oval, serrate, and of a very dark green colour, something like germander. Flowers axillary on very short peduncles. Calyx five-leaved; stamens six, greenish; seed-vessel tricoccous, green, becoming as big as that of *heliotropium tricoccon*, only it is smooth, and of a very pleasant pale purple colour. The leaves, when bruised, are very odoriferous. This plant grows chiefly in the lower hills of this island, in dry gravelly soil. *Sl. & Browne*.

The *ateramnus* of Browne has been referred to this genus, and both united to the order of euphorbias.

No

No English Name.

ARISTEA.

CL. 3, OR. 1.—*Triandria monogynia*.NAT. OR.—*Ensate*.

GEN. CHAR.—Calyx sexpartite; corolla hexapetalous; style declining; stigma simple and bell-shaped; capsule oblong trigonal; seeds many. The *capitata* was introduced by Mr. Wallen, and is the *morea cerulea* of Miller.

## CAPITATA.

Scape round, leaves distich, heads of flowers alternate, spathes membranaceous entire.

This is a large and ornamental plant, the stem three or four feet high, nearly twice the length of the leaves round, somewhat winged by the alternate, decurrent, cauline leaves, upright, sublignescens. Leaves linear, ensiform, stiffish, finely striated, without any prominent rib-like nerve, polished, dark green. Spathes and involucre membranous, scarious, and acute. Corolla blue, the segments obovate, equal, twisting round each other in a spiral form, when they close. It bears an abundance of seed, of which there are two or three in each cell, and by which it is easily propagated, as also by the offsets or suckers, which it throws up, but not in great numbers. This only thrives in the coldest mountainous situations in Jamaica.

See MORÆA.

## ARNOTTO OR ROCOU.

BIXA.

CL. 13, OR. 1.—*Polyandria monogynia*NAT. OR.—*Columnifera*.

The generic name was adopted from the Indian name used by Oviedo in his History of India or Spanish America.

GEN. CHAR.—The calyx is permanent; five-parted, obtuse, flat; the corolla double, the exterior five oblong thick petals dropping off as they expand, the interior like but thinner; the stamina are numerous setaceous filaments, half the length of the corolla; the anthers erect, roundish, and purple; stigma bifid compressed; the fruit an heart-shaped compressed capsule, surrounded with hairs, formed of two valves, opening at the angles, containing only one cell, but with an interior bivalve membrane; the seeds are numerous, turbinate and truncated at the umbilicus; the receptacle is linear, longitudinal, and grows to the middle of the valves.—There is only one species known.

## ORELLANA.

Urucu. Sloane, v. 2, p. 52, t. 181, f. 1. *Foliis cordatis cum acumine, floribus racemosis terminalibus*. Browne, p. 254.

This rises with an upright stem to the height of ten or twelve feet, sending out many branches at the top, forming a regular head, garnished with heart-shaped leaves, ending in a point, and having long footstalks. The flowers are produced in loose panicles at the ends of the branches, of a pale peach-colour, having large petals and a great number of bristly stamina of the same colour in the centre. After the flower is

passed the germen becomes a heart-shaped, or rather a mitre-shaped, vessel, covered on the outside with bristles, opening with two valves and filled with angular seeds, covered with a red waxen pulp or pellicle, from which the colour called arnotto is prepared. These plants thrive best in a cool rich soil, and shoot most luxuriantly near springs and rivulets. They are easily propagated from seed.

This plant hath many names, as *urucu*, *roucou*, *rocou*, *orleana* seu *orellana*, *ouroucou*. Tournefort calls it *nitella Americana maxima tinctoria*, and so doth Plumier. Hernandez and the Indians call it *achiote*, seu *medicina tingendo apta*.

The figure of the plant, with its flower and fruit, is extraordinary well designed in Piso. The leaves are cordated, or in the figure of an heart, about four inches long and about two broad, coming out alternately from the stalks and branches, having a sort of foot-stalk, and a nerve running through the whole leaf, with transverse or oblique veins on each side; at the ends of the branches come out, upon a short foot-stalk, many flowers in clusters, every flower the bigness of a small rose, with five leaves of a carnation colour, with a great many yellow stamina, or thrums, with purple tips; after the flower follows the fruit, or cod, which is in the shape of the leaf, but not so broad, covered with a very rough coat, like the chesnut, which is first green, and, as it ripens, grows of a dark brown, and then opens of itself. Every cod contains about thirty or forty seeds, about the bigness and shape of buck wheat, having a splendid red colour, and a little oily; so that it tinges or paints the fingers of a reddish colour, not easily got out with washing; and it is what sticks to the outside of the seed which makes the paste called anotto; which they get by washing it off with water, and after separate the water and make the paste up into balls. This the dyers use to make a colour they call aurora. I have known it sold in America for nine shillings per pound, but now of low price, and much out of use.

There is a magistery prepared with the paste, as followeth: Take fine flour of cassada, orange-flower water, white sugar, Brazil pepper, and the flowers of nhambi, all finely mixed. (*See more of the preparation in Piso, p. 116.*) This magistery is given to persons that are poisoned, in wastings and consumptions, hectic fevers, and immoderate sweatings; it stops bloody fluxes, strengthens the stomach, and provokes urine and the gravel; there is also an extract to be made out of the roots, which is of the same nature as the paste. Anotto is commonly put in chocolate; and the Spaniards mix it with their sauces, and broths, or soups, which gives them a saffron colour, and a pleasant taste.—*Barham, p. 4, 5.*

When a sufficient number of seeds are collected they are thrown into any convenient vessel, and as much hot water poured upon them as is necessary to suspend the red farina, which is gradually washed off the seeds by the hand or a spoon. When the seeds appear quite naked, they are taken out, and the wash left to settle; after which the water is gently poured away, and the sediment put into shallow vessels, to be dried by degrees in the shade; and, after acquiring, by this means, a due consistence, it is made into balls or cakes, and set to dry thoroughly in any airy place, until it is perfectly firm, in which state it is fit for market. *Long, p. 714.*

Another mode is to pound the contents of the fruit with wooden pestles; then cover them with water and leave them to steep for six days. This liquor being passed through a coarse sieve, and afterwards through three finer ones; it is again put into the vat or wooden vessel, and left to ferment a week. It is then boiled until it becomes pretty

pretty thick, and, when cool, is spread out to dry, and then made up into balls, which are usually wrapped up in leaves. Arnotto of a good quality is of the colour of fire, bright within, soft to the touch, and dissolves entirely in water.

The arnotto is said to be an antidote to the poisonous juice of manioc or cassada. Labat informs us that the Indians prepare an arnotto greatly superior to ours, of a bright shining red colour, almost equal to carmine. For this purpose, instead of steeping and fermenting the seeds in water, they rub them with the hands previously dipped in oil, till the pellicles come off, and are reduced into a clear paste; which is scraped off from the hands with a knife, and laid on a clean leaf in the shade to dry.

It is sometimes used to give a richness of colour to butter, cheese, and soups, in small quantities. Hughes tells us that the wood of this tree, being rubbed, produces fire, and that the bark makes long durable lines. The root is of a grateful taste and is used as saffron; they have much the same properties as the wax, but are said to work more powerfully by the urinary passages. The Indians paint themselves with the berries, mixed with lemon-juice and rum. The arnotto was formerly used by dyers, but at present it is not held in such estimation as a dye, though it still maintains its ground with painters.

## ARROW-HEAD.

## SAGITTARIA.

CL. 21, OR. 7.—*Monœcia polyandria*.NAT. OR.—*Tripetaloidiæ*.

This plant takes its name from the form of the leaves resembling the head of an arrow.

GEN. CHAR.—The calyx of the male flower is three-leaved, the leaves ovate, concave, permanent; corolla three-petalled, petals roundish, blunt, flat, spreading, three times as large as the calyx; the stamina numerous, often twenty-four, awl-shaped, collected into a head, anthers erect: the female calyx has three leaves, and the corolla three petals, as in the male; there are no pistils but numerous germens, collected into a head, gibbous outward, ending in very short styles, with acute stigmas; the receptacle globular; seeds numerous and naked. There are two species which grow plentifully in Jamaica.

1. *SAGITTIFOLIA*.

*Sagitta*. Sloane, v. 1. p. 188.

Leaves arrow-shaped acute.

This grows in great plenty in Jamaica. Sir Hans Sloane saith, he hath seen the same plant sent from Fort St. George, in the East-Indies, by the name of *coolette yella*. It grows much like our European arrow-head, and hath its name from its shape; viz. *sagitta* sive *sagittaria*. Tournefort calls it *ranunculus palustris folio sagittato maximo*. It generally grows in standing waters, and is counted a peculiar wound herb, whether inwardly taken or outwardly applied; the root, bruised and applied to the feet, helps the crab-yaws in negroes. Barham, p. 6.

2. *LANCIFOLIA*.

*Plantago aquatica*. Sloane, v. 1, p. 187. *Foliis maximis, simplicibus, oblongis, utrinque productis; ramulis verticillatis; caute glabris*. Browne, p. 345.

Leaves

## Leaves lanceolate ovate.

It grows near Black-River bridge, going to Old-Harbour, and in many other places. It is thought to have the same qualities with land plantain, the seed to be astringent, and the leaves good against burns, and to be applied to hydropic legs. The juice applied to breasts is a great secret in clearing them of milk.—*Sloane*.

Great quantities of this plant grow near the Ferry-Tavern, on the road between Kingston and Spanish-Town, where the stem grows very luxuriantly, and rises frequently to the height of two or three feet above the foliage. The branches of the lower verticillæ seldom exceed three in number, and are generally sub-divided in the same manner themselves; but those of the higher orders consist of chiefly five long simple flower-stalks, and those about the top of three only. The flowers that grow about the extremities of the stem and branches are generally male, and adorned with a great many filaments, which are always observed to stand on longer footstalks than the female flowers, which commonly occupy the lower part of the main as well as of the lateral flower-spikes. Both the stalk and branches are smooth and roundish.—*Browne*.

## ARROW-ROOT.

## MARANTA.

CL. 1, OR. 1.—*Monandria monogynia*.NAT. OR.—*Scitamineæ*.

The generic name was given by Plumier, in honour of Bartolommeo Maranta, who wrote three books on simple medicines; and was esteemed a man of considerable genius, who died in 1554.

GEN. CHAR.—Calyx a small, three-leaved, lanceolate, perianthium; corolla one-petalled, ringent, with an oblong compressed tube, bent in, border six-cleft, alternate outer segments ovate, equal, smaller, two alternate lateral very large and roundish, representing the lower lip; uppermost small, two-parted; the stamen a membranaceous filament, resembling a segment of the corolla, with a linear anther fastened to its edge; the pistillum a roundish germen, inferior; style simple, the length of the corolla; stigma obsoletely three-cornered, bent in; pericarpium roundish, obscurely three-sided, three-celled, three-valved; seed single, ovate, wrinkled, and hard. Five or six species have been referred to this genus, but all doubtful, (some of them indeed now differently classed), except the Indian arrow-root, or

## ARUNDINACEA.

*Canna Indica radice alba alexipharmaca*. Sloane, v. 1, p. 253, t. 149, f. 2. *Foliis lanceolato ovatis, petiolis superne ganglionosis fructu glabro*. Browne, p. 112.

Culm branched, herbaceous, leaves ovate-lanceolate, somewhat hairy below.

This plant has thick, knotty, creeping, perennial roots, having annular protuberances or rings, crowned with long, broad, arundinaceous, leaves, ending in points, and upright stalks, terminated by bunches of white flowers. The plant is propagated by cuttings of the roots, which spring at the joints, and in about twelve months is fit to be dug. It is very generally cultivated in Jamaica, where it was introduced from the island of Barbadoes.

This



This root is so called from its curing and expelling the poison which Indians put to their arrows when they shoot at their enemies, which, if they make but a slight wound, certainly kills the person if the poison be not expelled; and that this plant doth, by taking the juice inwardly, and applying the bruised root as a poultice outwardly: This was discovered by an Indian, taken after he had wounded an European with one of these poisoned arrows, whom they tortured until he promised to cure him, which he did effectually with the root of this plant. It hath a stalk and leaf exactly like Indian shot, only that hath a beautiful scarlet flower, and this hath a milk-white one. The leaves of it fall in December, and the root is fit to dig in January. Sir Hans Sloane calls it *canna Indica radice alba alexipharmaca*, from its known virtues in expelling poison. I knew a gentlewoman in Jamaica that was bit or stung with a black spider (which is venomous here) upon one of the fingers, which immediately inflamed and pained her up to the elbow and shoulder, and threw her into a fever, with symptoms of fits; and all this happened in less than an hour. They sent away for this root, which they took and bruised, and having applied it to the part affected, in half an hour's time she found much ease; in two hours afterwards they took that away, and applied a fresh root, which still brought more ease and quietness of her spirits; her fever abated, and in twenty-four hours she was perfectly well. I knew another person that was cured in the same manner; that was bit by one of these spiders, at the necessary-house, upon the buttock: And about three miles from St. Jago de la Vega, happened an accident of poison not designed, which was done by an ignorant negro slave, by stopping a jar of rum with a weed, which will be described hereafter\*. The rum stood stopped all night, and some of the leaves had fallen into it: In the morning, a negro drank of it, and gave some to two or three more of his country; and in less than two hours they were all very sick with violent vomiting and tremblings. This alarmed the plantation, and the master of it was sent for, letting him know that some of his negroes were poisoned, but how they could not tell. He took a surgeon with him; but before he got there two or three of them were dead, and another just expiring. The surgeon was at a stand what to do; but somebody advised Indian arrow-root, which they got immediately, and bruised it, being a very juicy root, and pressed out the juice, and gave it to the negro, who was seemingly adying: The first glass revived him, the second brought him to himself, so that he said he found his heart *boon*, and desired more of it; upon which he mended, and in a little time recovered. This is Lopez de Gomara's counter-poison, and is one of the ingredients of Hernandez's grand elixir, or great antidote. I have seen this root frequently given in malignant fevers with great success, when all other things have failed. When I make up *lapis contrayerva* for my own practice, I always put in a good quantity of it. I have given it decocted, but it is best in powder, which causes sweat; the dose is from a drachm or two. I have observed, that although this is a very flowery root, yet, if you keep it seven years, no vermin will meddle with it, when all other roots in this country are very subject to be destroyed with worms and weevils. It hath no manner of ill taste or smell; it works by sweat and urine, and yet is a great cordial; it provokes the terms, and clears lying-in women; it drives out the small-pox or measles; and if it was candied as eringo-root, it would make a pleasant preserve; for it possesses the like prolific virtue.—*Barham*, p. 7, 8.

Prepared as follows, this root makes excellent starch, and is frequently used instead of the common sort. The roots, when a year old, are dug up, well washed in water, and

\* See Savanna Flower.

and beaten to a pulp, which is thrown into a large tub of clean water. The whole is then well stirred, and the fibrous part wrung out by the hands and thrown away. The milky liquor being passed through a hair-sieve, or coarse cloth, is left to settle, when the water is drained off, leaving a white mass, which is again mixed with clean water and drained; the mass is then spread out and dried in the sun, and becomes a pure white flour, which will answer all the purposes of starch. Boiled with milk and water, it is a most nourishing and extremely palatable food, which may be retained by the weakest stomach. It is, for many domestic purposes, preferable to the best wheaten flour, especially in making puddings.

Dr. Wright says a decoction of the fresh roots makes an excellent ptisan in acute diseases. Its juice is also said to stop a gangrene, if applied in time, and that with water it is good against all acrid poisons. The Indians call it *toulola*.

## ARSMART.

## POLYGONUM.

CL. 8, OR. 3.—*Octandria trigynia*.NAT. OR.—*Holoraceæ*.

The generic name is derived from two Greek words signifying very knotty, on account of the many knots on the stalks.

GEN. CHAR.—There is no calyx; the corolla is five-parted and calycine, or serving instead of a calyx; the stamens eight short filaments, with roundish incumbent anthers; germen triquetrous, styles short, stigmas simple; there is no pericarpium, but the corolla remains, and surrounds the seed, which is single, triquetrous, and acute. There are many species, three of which grow in this island, the following, and the *scandens*, commonly called buck-wheat:

## 1. PERSICARIA.

*Persicaria urens sive hydropiper*. Sloane, v. 1, p. 140. *Glabrum, floribus hexandris, stylis bifidis, vaginis submuticis*. Browne, 212.

Flowers hexandrous semidigynous, spikes ovate oblong erect, peduncles even, stipules ciliate

This grows very commonly on the muddy banks of the Rio Cobre, and sends out from every joint, touching the water or mud, a great many fibrils. The stalk is round, jointed at every inch and a half, each joint inclining a little downwards, and about two feet long. At every joint there is a protuberance, and at it upwards is a half-inch long membrane covering the stalk. The leaves come out at each joint alternatively, on inch-long footstalks, they are eight inches long and two broad where broadest, smooth, and in every thing like English arsmart leaves. The flowers stand on the tops of the branches, spike-fashioned, like in colour to the ordinary persicarias, and to them follows a black, flat, roundish, shining, smooth, seed, having two small prickles or points at each end. It grows by river sides and in moist grounds all over the island, and comes very near, if not altogether the same, as our common European persicaria. Sloane, after giving the foregoing description, cites various authorities for the following virtues which this vegetable is reputed to possess: A fomentation of the leaves takes away old aches and colds of the joints. It is a good caustic, and used in putrid and wormy ulcers for that cause. It takes away hardened tumours, and dissolves congealed blood. The juice kills worms in the ear. Boiled in water, and applied, it carries away bad humours from

from the eyes. If beaten and applied with the juice, it helps purulent eyes. It takes off spots from the body, if its juice be rubbed on them morning and evening. The juice of the whole plant, except the root, boiled in sergelim oil, is a cephalic liniment, even to be applied to bleedings of the nose. This is also a liniment for the gout. The root, taken with hot water, loosens the belly; and the leaves, given in sour milk, assuage the swellings of the belly and gripings. Flies, gnats, or fleas, come not near this herb or its juice, and, therefore, it is good for ulcers, and keeps these vermin from rooms strewed with it. Some of it put under the saddle, and rubbed on a horse's back, refreshes him when tired.—Sloane.

We have two sorts of arsmart in America, the same as grow in England, one without spots, the other with. It is known, as the great and learned Boyle commends it, as a specific to break the stone and expel the gravel in the reins or bladder, and that by a simple water distilled from this plant; but its juice or essence, in my opinion, is much better, sweetened with a little syrup of marsh-mallows. The root, bruised and applied to an aching tooth, takes away the pain; the juice or essence, mixed with equal quantities of ox-gall, oil of spike, and mustard, well mixed, discusses all cold swellings, serofulous and schirrous tumors, and whitlows or felons; the essential oil is good for knotty gouts; or this: Take the oil of arsmart (made by infusion), lovage, and shepherd's purse, of each a handful; the heads of five sheep and fifteen frogs; boil all together in two or three quarts of oil, until the flesh is consumed, and then strain. This is excellent for knotty or chalky gouts, rubbing it well into the parts.—Barham, p. 82

Dr. Dancer says the dose of the fresh plant, (*persicaria*) in decoction, is a wine-glass full, as a diuretic; and, on the authority of the late ingenious Mr. Samuel Felsted, that an infusion of the dried plant is powerfully diuretic, and very useful in gravelly complaints.—*Medical Assistant*,\* p. 383. The following is copied from Mr. Felsted's manuscript: "A decoction of the stalks of this plant, fresh gathered, drank, a wine glass-full at a time, at short intervals, has very speedily removed a dangerous suppression of urine, of two days continuance, after all the medicines which were used had failed.—Also a decoction of the dried stalks and leaves has afforded relief in an arthritic complaint, by evacuating sand and gravel."

## 2. BARBATUM. BEARDED.

*Persicaria procumbens longissima, angustifolia, non maculosa, spica longiori, laxiori et graciliori.* Sloane, v. 1, p. 17, t. 3, f. 1. *Subhirsutum, vaginis setosis, floribus octandris, stylis trifidis.* Browne, p. 212.

Flowers hexandrous trigynous, spikes red-like, stipules truncate setaceous-ciliate, leaves lanceolate.

Sloane says the root of the barbatum has several protuberances, and great numbers of reddish brown strings. The stalks are spread round, trailing on the surface of the earth for about four feet in length, round, reddish, smooth, jointed at every inch.—

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\* The compiler has to apologise to the learned author of the *Medical Assistant*, for having omitted, in his preface, to acknowledge the assistance he has derived from that very useful work, which ought to be in the possession of every family throughout the West Indies.

The flowers stand on footstalks at the tops of the branches, like those of ordinary artichoke, but more lax and slender, followed by small shining black seeds in green husks; seeds angular, with two prickly ends. It grows in moist and muddy places.—*Sloane*.  
See LUCKWHEAT.

## ARTICHOKE.

## CYNARA.

CL. 19, OR. 1.—*Syngenesia polygamia equalis*. NAT. OR.—*Compositæ*.

This generic name is said by some to be derived from the word *cinere*, because, according to Columella, land for artichokes should be manured with ashes. Parkinson says, it is so called from the ash-coloured hue of the leaves.

GEN. CHAR.—Calyx common ventricose imbricate, with numerous scales; corolla compound tubulous, uniform; corollets hermaphrodite, nearly equal, proper, one-petalled: stamina five-filaments, very short; anther cylindric, five-toothed; germen ovate, style filiform, stigma simple; no pericarpium; seeds solitary, oblong-ovate; down scssile, long; receptacle bristly. There are six species, two only cultivated for use, the cardunculus or cardoon, and the

## SCOLYMUS.

Leaves somewhat spiny, pinnate and undivided; calycine scales ovate.

This is the common garden artichoke, of which there are two varieties. 1. The conical green headed French artichoke, having small leaves, terminated by spines, a tall stalk; the head somewhat conical, and of a light green colour, with the scales pointed at top, opening and turning outward. 2. The globular headed red Dutch artichoke, having leaves without spines, a strong stalk, the head large, globular, a little compressed at top, and of a reddish green colour; broad obtuse scales emarginated at top, growing close, and turning inward. This last is deservedly the most esteemed, both on account of its superiority in size, and the agreeableness of its flavour. The flowers and seed of all the plants of this genus are produced in the centre of the head; the scales of which are the proper calyx of the flower, which consists of numerous small blueish florets, succeeded by downy seeds sitting naked on the receptacle. Both the varieties are propagated by slips or suckers, and thrive very well in rich land, and high cold situations in Jamaica. Very fine ones may often be met with in the Kingston market, the produce of Port Royal, Liguanea, and St. David's, mountains. The ground where they are planted should be well dug, freed from weeds, and so thrown up as to prevent water lodging about the roots. It is best to leave only one shoot and head to each root; by which means the artichokes will be much finer and larger.

The artichoke is a native of the southern parts of Europe. The receptacles or bottoms of the heads, and the fleshy parts of the scales, are usually eaten, and though thought by Galen to generate bile and melancholy, are wholesome and nutritious.—The leaves are bitter, and afford, by expression, a considerable quantity of juice, which, when strained and mixed with an equal part of white wine, has been given successfully in dropsies; for this purpose, two or three spoonfuls of the mixture are to be taken night and morning. An infusion of the leaves are likewise diuretic, and may be employed with the same intention.—*Woodville's Medical Botany*, p. 69, pl. 28.

See CARDOON.

## ASPARAGUS.

ASPARAGUS.

ASPARAGUS.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Sarmentaceæ*.

This takes its name from a Greek word, signifying a young shoot, before it unfolds its leaves.

GEN. CHAR.—No calyx; corolla six petalled, cohering by the claws, oblong, and campanulate; the petals reflex at the extremities; stamina filiform capillaments, inserted into the petals, erect, and half the length of the corolla; anthers roundish; germen trigonal, style short, stigma a prominent point; the fruit a globose three-celled berry; seeds two, round, angular inside, smooth. There are several species and varieties, the most useful is the

OFFICINALIS. OFFICINAL.

Stem herbaceous, round, erect; leaves setaceous; stipules alike.

The root is perennial, large, composed of many succulent round bulbs, forming a kind of transverse tuber, whence spring numerous stems. The propagation of this useful plant is from seeds. It thrives well in Jamaica, and will grow almost any where, and a bed of it once established will supply a family for many years, with frequent cutting and manuring. The seeds are collected by bruising the berries in any vessel, and afterwards washing off the pulp. They should then be dried and sown in small trenches well manured. They must be kept clear of weeds, and, when the stalks are dry, a little rotten dung should be thrown over the bed. When they grow up again, they will be fit to cut for the table. They produce good cuttings, in this island, twelve months after they are sown. The roots of the asparagus have a bitterish mucilaginous taste, inclining to sweetness; the fruit has much the same kind of taste; the young shoots are more agreeable than either. Asparagus promotes appetite, but affords little nourishment. It gives a strong ill smell to the urine, in a little time after eating it, and, for this reason, chiefly, is supposed to be diuretic; but neither the roots, nor the stalks when branched, have this effect: it is likewise esteemed aperient and deobstruent.

M. Roliquet has lately, it is said, discovered a new vegetable principle in asparagus; it is a triple salt of lime and ammonia, of which the acid is unknown. This chemist, and M. Vauquelin, have found a substance, in the juice of this vegetable, analagous to manna.

ASPHODEL, OR KING'S SPEAR.

ASPHODELUS.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Coronariæ*.

GEN. CHAR.—There is no calyx; the corolla is monopetalous six-parted; the nectarium consists of six small valves, forming a globe; the stamina subulate, bowed, inserted into the valves of the nectary, alternately shorter; anthers oblong, incumbent; germen roundish, style subulate, stigma truncate; the capsule is fleshy, globose, three-lobed and three-celled; seeds numerous, triangular, and gibbous on one side. There are three species, only one of which has been introduced.

RAMOSUS. BRANCHY.

Stem naked, leaves ensiform, keeled, polished.

F 2.

Branchy

Branchy asphodel hath roots composed of fleshy fibres, to each of which is fastened an oblong bulb as large as a small potatoe; the leaves are long and flexible, having sharp edges; between them come out the flower stalks, which rise more than three feet high, sending forth many lateral branches. The upper parts of these are adorned with many white star-shaped flowers, which grow in long spikes, flowering gradually upward.—They are easily propagated by parting their roots, and are pretty ornaments to a flower garden.

The roots are of an acrimonious taste, and heating quality; being drank they promote urine and the menses; and the weight of a drachm, taken in wine, is used with success in pains in the side, coughs, convulsions, and ruptures. They are good against bites of serpents, and make a good cataplasm for foul spreading ulcers, inflammations, &c. The ashes of the burnt root, rubbed on an alopecia, cause new hair to spring.—*Chambers' Cyclop.*

ASPLENIUM—*See* HARTS TONGUES and SPLEEN WORT.

ASTER—*See* STAR-WORT.

ATROPA—*See* TREE ATROPA.

ATTOO—*See* CHAW STICK.

AUCUBA—*See* JAPAN AUCUBA.

AURICULA—*See* PRIMROSE.

#### AVENS.

#### GEUM.

CL. 12, OR. 5.—*Icosandria monogynia.* NAT. OR.—*Lenticosæ.*

The derivation of this name is uncertain.

GEN. CHAR.—Calyx a one-leafed, ten-cleft, upright, perianthium, segments alternately small and sharp; the corolla has five petals; the stamina are numerous filaments, length of the calyx; short anthers; the pistillum has numerous germs, collected into a head; styles hairy, long; stigmas simple: there is no pericarpium, the common receptacle of the seeds oblong: seeds numerous, compressed, hisped, awned, with a long style. One species is a native of this island

VIRGINIANUM. VIRGINIAN.

*Caryophyllata foliis alatis.* Sloane, v. 1, p. 224.

Flowers upright; awns hooked, naked; stem-leaves ternate, the upper ones lanceolate; petals shorter than the calyx.

There are two or three sorts of them growing in America. One sort, Pere le Feuville calls *caryophyllata foliis alatis flore amplo coccineo*. It is an aperitive herb, which the natives make a tea of, to keep their bodies in order. It grows about half a yard high, on the side of the mountains, and hath a scarlet blossom. The same sort I found growing in Jamaica: It is hot and dry, attenuates, cleanses and opens obstructions; is good in bruises and pleurisies, and heals wounds.—*Barham, p. 10.*

Sloane says this plant is very common in the woods of this island.

#### AVOCADO

## AVOCADO PEAR.

## LAURUS.

CL. 9, OR. 1.—*Enneandria monogynia*. NAT. OR.—*Holoraceæ*.

The name laurus is said to be derived from the Latin word *laus*, praise.

GEN. CHAR.—There is no calyx; the corolla is calycine, or serving in the place of the calyx, and sexpartite; the nectarium with three glandules, each terminated by two bristles surrounding the germen, the stamina are nine filaments, shorter than the corolla, compressed, obtuse, and placed in threes; the anthers adhere to the edge of the upper part of the filaments, on each side, and there are two globose corpuscles affixed by a very short filament to each of the stamina of the inner series, near the base: the germen is oval; the style simple, equal, and of the length of the stamina; the stigma is obtuse and oblique; the fruit a mono-spermous plum.

## PERSEA.

*Prunifera arbor, fructu maximo pyriformi viridi, pericarpio esculento butyraceo, nucleum unicum maximum nullo ossiculo tectum, cingente.* Sloane, v. 2, p. 132, t. 222, f. 2. *Foliis oblongo ovatis, fructu obverse ovato, pericarpio butyraceo.* Browne, p. 214.

Leaves ovate, coriaceous, transversely veined, perennial, flowers corymbed.

This tree, which is said to have been introduced into this island from the continent, rises to a considerable height, with a straight trunk, of which the bark and wood are of a greyish colour, the bark very rough and irregular. The leaves are oval, transversely veined, pointed, of a leathery substance, and of a beautiful shining green above, and pale below; when young they are reddish or flame coloured. The flowers are produced in large corymbed knots or clusters at the extremities of the branches, and consist each of six petals, disposed in the form of a star, and of a dirty white or yellow colour, with an agreeable odour, which diffuses itself to a considerable distance. The wood of the tree is soft, and of no use. It is very subject, from its extreme brittleness, to lose its branches in any high wind, and young trees are frequently snapt in two, they however soon shoot again many suckers, which grow rapidly. This tree is a native of the West Indies, and easily propagated from the seeds. It begins to bear in three or four years after planted, and sometimes even sooner. The fruit is pear-shaped, and from one to two pounds in weight. On removing a green or brown skin or covering, we come to a yellow butyraceous substance, interspersed with greenish veins; and, in the heart, find a large roundish seed or stone, which is unequal on the surface, hard, and woody. This fruit ripens in August, September, and October, and constitutes a very agreeable article of food for three or four months in the year. With a little salt, and one or two plantains, they afford a hearty meal to the negroes, and are introduced at every table, being by many considered a great luxury. Few people, however, relish them at first, but use reconciles them to the palate, and they soon become agreeable. When ripe the seeds rattle; and the yellow or eatable substance, firm, though soft, parts freely from the external skin, it tastes somewhat like butter, or marrow; and it is hence called the *vegetable marrow*. It is so rich and mild that most people make use of some spice or pungent substance to give it poignancy. For this purpose wine, sugar, lime-juice, but mostly pepper and salt, is used. But, however excellent this fruit is when ripe, it is very dangerous when pulled and eaten before maturity.—Dr. Wright says, he has repeatedly known it produce fever and dysentery, which were removed.

removed with difficulty. In such cases the decoction of the kernels of this fruit are said to be useful, as they appear to be of a very astringent quality. The leaves of this tree, in decoction, are reckoned balsamic, pectoral, and vulnerary; the decoction is of a saffron colour, of a mucilaginous substance, and taste not unpleasant. They are also, with those of the bead vine or wild liquorice, made into pectoral decoctions; and the buds are said to be used with success in ptisens against the venereal disease. An infusion of them in water, drank in the morning fasting, is strongly recommended for dislodging coagulated blood in the stomach, produced by a fall, or a severe stroke on that important entrail. Hogs, dogs, cats, horses, cattle, birds, and many other animals, eat these pears greedily, and they are generally made us of, during the season, for fattening hogs, which gives their flesh a very agreeable flavour.

*Sabaca* is the Indian name. The Spaniards, in South America, call it *aguacate*, and under that name it is described by Ulloa. However, in Peru and Mexico, it is better known by the appellation of *putta*, or *patto*.

This tree and fruit are well known in America; in the kingdom of Peru they are called *puttas*.

The fruit is of a pear fashion, as big as the English pound pears, and green when ripe; but I have seen a sort very round, with red streaks like a pear-maim. When they have been gathered some days, they grow soft, and are fit to eat with pepper and salt; some mix them with lemon-juice and sugar, others will boil them and eat with salt beef. They are very nourishing, and are thought to be great provocatives; therefore the Spaniards do not care their wives should eat much of them. This fruit is ripe in June, and so continues till October. They have a large stone in the middle, wrapped up in a fine thin skin, of the shape of a heart; and when that skin is taken off, it is very rough, and in wrinkled or little hard protuberances, of a reddish colour; when cut through, it is very white; but the air soon turns it reddish. If you take one of these pear-stones, and write upon a white wall, the letters will turn as red as blood, and never go out until the wall is white-washed again, and then with difficulty; also, if you take a piece of white cloth and put round them, and with a pin prick out any letter or figure on the cloth, the figure will be of a yellow colour, not to be easily washed out.\*—*Barham*, p. 10.

There are two species of the fruit, the green and the red. The latter is preferred, having a firmer better tasted flesh than the other; but I have observed that the goodness of both depends entirely upon the place of growth; for the fruit produced in a wild state is small, and often bitter; the finest come from the red hills near Spanish Town, the Liguanea mountains, and the inland parts.—*Long*, p. 808.

BENJAMIN—CAMPHIRE—CINNAMON—COGWOOD—LAUREL TREES—NUTMEG, AMERICAN—SASSAFRAS.

No English Name.

AYENIA.

CL. 20, OR. 4—*Gynandria pentandria* NAT. OR. *Columnifera*.

This name was given in honour of the Duke D'Ayen, a great promoter of the science of botany, who had a noble garden at St. Germaine.

GEN.

\* It is asserted, that this stain will disappear, when the pears are in season the following year.



GEN. CHAR.—Calyx one-leafed five-parted, parts ovate, oblong, acute, coloured in the middle, reflex, withering; corolla pentapetalous, in the form of a star; the nectarium bell-shaped, sitting on a cylindric erect column, shorter than the calyx; stamens very short filaments, inserted into the margin of the nectary, bent arch-wise through a notch at the end of each petal; anthers roundish; germen roundish five-cornered; style cylindric; stigma obtuse, five-lobed; capsule five-grained, roundish, muricate, five-celled, ten-valved, elastic. Two species grow in this island.

1. PUSILLA      FEEBLE.

*Urticæ folio anomala, flore pentapetalo purpureo, fructu pentacocco muricato.* Sloane, v. 1, p. 209, t. 132, f. 2.

Leaves cordate, smooth.

It has a reddish, round, deep, oblong, root, from which spring several round green tough branches, about six inches high, the leaves are oval, snipt or cut on the edges, smooth, and standing on a small footstalk. Between them and the stalk comes out a small, pentapetalous, purplish, flower, standing on a very small reddish footstalk, and having one large stylus, which in sometime grows red, large, and afterwards rough and brown, it is pentacoccous or divided into five cellulæ, containing each a blackish seed, and all are pendulous or inclining towards the ground. It grows among the grass in town savannas.—*Sloane.*

2. LÆVIGATA.      SMOOTH.

Leaves ovate, entire, quite glabrous; germ pedicelled; nectary ten-cleft,  
—*Sw. Pr.* 97.

**BACHELORS**

## BACHELORS BUTTON.

## GOMPHRENA.

CL. 5, OR. 2.—*Pentandria digynia*. NAT. OR. *Amaranthe*.

This generic name is derived from a Greek word signifying a nail, knob, or button.

GEN. CHAR.—Calyx a coloured perianthium; outer three-leaved; leaflets two, converging, keeled; corolla five-petalled, nectary a cylindric tube, the length of the corolla, with a five-toothed patulous mouth; stamina scarcely observable within the mouth of the nectary; anthers upright, closing the mouth of the nectary; germen ovate, pointed; style cloven half way; stigmas simple, the length of the stamens; capsule roundish, circumcised; seed single, large, roundish, with an oblique tip. Two species grow in Jamaica.

## 1. GLOBOSA. GLOBULAR.

Stem upright; leaves ovate lanceolate, heads solitary, peduncles two leaved.

This is a very ornamental plant in gardens, and is annual, rising with an upright branched stalk, about two feet high. Leaves, branches, and peduncles, opposite; the latter axillary, long, and naked, except that there are two short leaves close under each head of flowers. These heads are at first globular, but as they increase in size become oval. There is a white and a purple variety. The flowers, if gathered before too far advanced, will retain their beauty and brilliant colour for a considerable length of time. Two varieties grow naturally in the West Indies, the heads of which resemble the others in colour and shape, but are much smaller. They are propagated by seeds. Browne is doubtful whether this species is not a native, as he found it growing wild about the savannas, rising twelve or fifteen inches.

## 2. INTERRUPTA. INTERRUPTED.

Stem almost upright, spike interrupted.

Root annual. Stem shrubby at bottom, from one to two feet high. Branches jointed, sub-decumbent, lanuginose, white. Leaves at the root aggregate, sessile; above opposite, lanceolate, obtuse, tomentose, beneath white lanuginose, soft. Flowering stems leafless, stiff, whitish, except that they are often purple towards the end. Flowers in spikes, aggregate, sessile, interrupted, lanuginose. Scales two or three membranaceous, minute, forming an involucre to the calyx, which is five-parted; the parts linear erect, purple, woolly on the outside. Germ. large, compressed, woolly; style short; stigma sub-capitate, yellow. Capsule largish, involved in the calyx, opening in two parts at top, woolly, compressed, crested on the edge. This species is a native of the dry sandy fields, in the southern parts of Jamaica.—Sw.

See RUPTURE WORTH, HAIRY.

## BALSAM HERB.

## DIANTHERA.

CL. 2, OR. 1.—*Diandria monogynia*. NAT. OR.—*Personata*.

This genus takes its name from a Greek word, signifying double anthered.

GEN. CHAR.—Calyx one-leafed, five-parted, tubular; corolla one petalled, ringent, tube short, patulous, upper lip ovate, lower with three segments; stamina shorter than

than the corolla, growing to its back; anthers double, oblong, one a little higher; germen oblong, style the length of the stamina, stigma obtuse; capsule two-valved, two celled, compressed above and below, but alternately, with boat-like valves, bursting asunder with an elastic nail, seeds solitary, in form of a lens.— This is nearly allied to the genus *justitia*, from which its fructification differs only in the stamens; and to which Swartz united it. Two species grow in this island,

## 1. AMERICANA. AMERICAN.

Spikes solitary, alternate.

This is a low herbaceous plant, with a perennial root, sending out several weak stalks about four inches long. The leaves are roundish, hairy, sessile, of a dark green colour, and aromatic odour. The flowers are produced from the sides of the stalks, in small spikes, and are in shape and colour very like those of *clinopodium*.

This herb is so called in Jamaica, and few or none know it by any other name, although it is a sort of *antirrhinum*. This in Jamaica smells, when rubbed in the hand, almost like *melilot*, or some pleasant balsam; and therefore they call it balsam-weed or herb, and make a balsam of it. The juice or distilled water is good for sore eyes.— *Barham*, p. 13.

## 2. COMATA. TUFTED.

*Antirrhinum minus angustifolium, flore dilute purpureo.* Sloane, v. 1, p. 160, t. 103, f. 2. *Foliis lanceolato ovatis, racemo spaciato asurgenti, spicillis verticillatis.* Browne, p. 118.

Spikes thread-form, verticilled, the inferior ones umbelled.

Swartz makes this plant *justitia comata*. The stem herbaceous, a foot high, somewhat branched and erect, angular, jointed, smooth, the joints swelling. Leaves subsessile, decussated, opposite, lanceolate, acute, attenuated at the base, smooth, nerved, on very short petioles. Peduncles axillary, filiform, terminated by filiform and umbelled spikes; flowers all directed one way, minute, pale blue. Bractes minute under the flowers. Segments of the calyx linear. Upper lip of the corolla half vaulted, lower trifid spreading, with very minute bloody dots in two rows on the throat; filaments under the vault of the throat; anthers two, alternate, black; germ ovate, style, short; stigma simple, bent in; capsule ovate, attenuated at the base, containing four round flattened seeds.—*Sw.*

This plant has a hairy red fibrous root, it grows commonly in the lowlands, sometimes two or three feet high, and is plentifully furnished with slender subdivided branches.—*Browne*.

See JUSTITIA BALSAM and ROSEMARY, WILD.

## BALSAM TREE.

## CLUSIA.

CL. 23, OR. 1.—*Polygamia monoecia.*

NAT. OR.—*Guttiferae.*

This is named in memory of Carolus Clusius, an eminent French botanist.

GEN. CHAR.—Calyx four, five, or six, leaved, imbricate, leaflets concave, permanent, interior

interior ones gradually smaller; corolla four, five, or six, petals, roundish, spreading, concave; stamina many simple filaments, with simple anthers growing to the side of the tip; the pistillum has an ovate-oblong germen, no style; stigma starred, flat, obtuse, permanent; capsule ovate, marked with furrows, celled, the valves bursting in a radiate manner; seeds numerous, ovate, covered with pulp, affixed to a columnar angulated receptacle. The female nectary is formed by a coalition of the anthers, including the germ. Some of the flowers are sterile with respect to the male, and others with respect to the female organs. One species is known to be a native of Jamaica:

FLAVA. YELLOW.

*Terebinthus folio singulari non alato, rotundo, succulento, flore tetrapetalo pallide luteo, fructu majore monopyrreno.* Sloane, v. 2, p. 91, t. 200, f. 1. *Arborea foliis crassis nitidis, obovato subrotundis; floribus solitariis.* Browne, 236.

Leaves veinless; flowers four-petalled.

This plant grows very commonly in Jamaica, generally to the height of fourteen to twenty feet. The flowers are produced at the ends of the branches, having a thick succulent cover. The perianth consists of four rows of imbricated scales, alternately three and two; corolla four thick fleshy oblong screw shaped pale yellow petals; the stamens numerous, standing in the form of a hollow sided square; the germ thick, roundish, obtusely quadrangular, with twelve distinct stigmas in a circle round the top of it; the capsule thick, roundish, many valved, twelve-celled, containing many roundish seeds in a saffron coloured pulp. Wherever the trunk or branches are wounded, they throw out a thick resinous gum, said sometimes to be used as a vulnerary, but has no smell or pungent taste. This plant may be propagated by seeds or cuttings, and grows in almost any soil.

This tree is so called because so much balsam comes from it, even from the bark, leaves, and fruit. Sir H. Sloane tribes it amongst his *terebinthi*, or turpentine trees; but it is in no respect like any of the fir kind, it is certain. It hath very thick, round, and brittle leaves, and, when broke, comes out a milky juice, which immediately turns yellow, and sticks to the fingers like bird-lime; the fruit is the bigness of a genetiv, or Indian wild fig, and full of gum. If you cut the bark of the tree, immediately comes out a yellow gum, but without scent. I question not but the gum would be of great use, if experienced; for we know not as yet the virtues of it, nor ever could meet with any that could give me any medicinal use of it; if the Indians know, they keep the use of it to themselves. They grow in great plenty in Jamaica; and are so plentiful in most parts of America, that in some places they mix this gum juice with tallow, and paint their canoes and boats with it, to make them glide through the water, and preserve them from worms.—*Barham*, p. 14.

#### BAMBOO.

#### ARUNDO.

CL. 3, OR. 2.—*Triandria Digynia.* NAT. OR.—*Gramina.*

This name has been derived from the Latin word *areo*, because it soon becomes dry.  
GEN.

**GEN. CHAR.**—Calyx a one or many flowered glume, two valved, erect; corolla two-valved, valv's husky, the length of the calyx, oblong, acuminate; the stamina three, or more; anthers forked; the pistillum an oblong germen, the styles are two, reflexed, the stigma simple: there is no pericarpium; the seed is single, to which the corolla adheres without gaping, furnished with a long down.

## BAMBOS. BAMBOO.

Calyx many or one flowered; spikes in threes, or unequal in number, sessile.

The bamboo is a native of the East Indies, and was introduced into Jamaica by Mr. M. Wallen, who procured it from Hispaniola; it was first planted in the parish of St. Thomas in the East, and has since been very deservedly and very generally propagated, for it is a most useful plant.

It has a woody, hollow, round, jointed stem, growing from forty to sixty feet high. The main root is long, thick, jointed, spreading horizontally, sending out many cylindrical woody fibres, of a whitish colour, many feet long. From the joints of the main root spring the stalks, and send out at their joints several stalks joined together at their base, which run up in the same manner as those they shoot from. If any of these be planted, with a piece of the first stalk adhering to them, they will perpetuate their species. They are armed at their joints with one or two sharp spines, and furnished with long lanceolate leaves, roundish at the base, they are rough and striated, eight or nine inches long, having short footstalks. The flowers are produced in large panicles from the joints of the stalks, placed in parcels close to the receptacles, resembling those of the common reed, and are succeeded by reeds of the same form, surrounded with down.

There is scarcely any plant that may be used for a greater variety of useful purposes than the bamboo: The young shoots are covered with a dark green bark; these, when very tender, are put up in vinegar, salt, garlic, and the pods of capsicum, and thus afford a pickle, which is esteemed a valuable condiment in the Indies, and is said greatly to promote the appetite, and assist digestion. The stalks, in their young state, are almost solid, and contain a milky juice, of a sweet nature; and, as the stalks advance in age, they become hollow, except at the joints, where they are stopped by a woody membrane, upon which this liquor lodges, and concretes into a substance called *tabarrir*, or sugar of *mombu*, which was held in such esteem by the ancients, in some particular disorders, that it was equal in value to its weight in silver.

The nature of this substance is very different from what might have been expected in the product of a vegetable. Its indestructibility by fire, its total resistance to acids; its uniting by fusion with alkalies, in certain proportions, into a white opaque mass, into a transparent permanent glass; and its being again separable from these compounds, entirely unchanged by acids, &c. seem to afford the strongest reasons for considering it as very nearly identical with common siliceous earth. As to its medical virtues, though the drug be, as before observed, in much esteem with the orientalists, yet they are not such as to cause it to have any regard paid to it in the modern practice of physic in Europe. Yet the virtues of the several parts of the bamboo are very considerable, according to Loureiro, who, in his *Flora Cochinchinensis*, tells us that the leaves, bark, buds, and root, are used. The leaves, he says, are cooling, emollient, and resolvent; their decoction is good in fevers, cough, pains of the throat, &c. the thin bark is cooling and agglutinant, and a gentle astringent; it is good in feverish heats, hæmorrhagias, nausea, and vomitings: the roots and buds are attenuating, promote urine, and purify

the blood; are good in wandering pains, obstructions, and venereal cases: from the fresh roots, mixed with tobacco leaves and betel, in equal proportion, and infused and macerated for some days in oil, is prepared an ointment of great efficacy in discussing hard and scirrhous swellings.

The bamboo is a very ornamental as well as useful plant, and may be formed into most beautiful arbours. Its growth is very rapid, for, in a rich soil, the young shoots, growing in a large clump, have been found, on several days measurement, to have grown seven and a half inches every twenty-four hours. From the nature of their roots, when planted along the edges of such roads as are made on the sides of steep hills, they not only prevent the road from breaking away, but form an agreeable shade, and hide any frightful precipice from the eye of the traveller. As a live fence they are excellent, coming quickly to maturity, and when full grown, which they will be in four or five years; are not only impenetrable to cattle, but afford them food in their leaves and young shoots, which they eat heartily. The old stalks grow to five, six, or seven, inches diameter, and are then of a shining yellow colour, they are very hard and durable, and very useful in buildings; the long duration of these canes was fully exemplified in the lathing of an old house in Spanish Town, which stood near the spot where Rodney's Temple is now erected, and was pulled down to make room for some of the new buildings. It was a Spanish building, came into our possession at the reduction of the island in 1655, and was taken down about the year 1790 or 1791, when the wood of the wild cane, a kind of bamboo, was found perfectly sound. In the East all sorts of household furniture are made of it, as also bridges, masts for their boats, rails, fences, gates. It is also converted into pipes for conveying water: paper is also said to be made of it, by steeping it in water, and thereby forming a paste. They also make poles of it to carry their palanquins; and the smaller stalks furnish good walking sticks. The inhabitants of Otaheite make flutes of them, about a foot long, with two holes only, which they stop with the first finger of the left hand, and the middle one of the right, and they blow through their nostrils. The wood is a good fuel, and it has been suggested that, on estates, where copper wood is scarce, twenty or thirty acres planted in bamboos, would afford an inexhaustible supply of that necessary article, as, when cut down, they grow up again very rapidly and as vigorous as ever.

See REEDS.

BANANA—See PLANTAIN.

No English Name.

BANISTERIA.

CL. 10, OR. 3.—*Decandria trigynia*. NAT. OR.—*Trihilatæ*.

This was so named by Dr. Houston, in memory of the Rev. John Banister, a curious botanist, who lost his life, in the search after plants, in Virginia.

GEN. CHAR.—The calyx four or five parted, with nectarious pores on the outside of the base; corolla five-petals, very large, roundish, and angulated; the stamina are small and coalescent at bottom; styles simple, stigmas obtuse; capsules three, with membranous wings; seeds solitary, covered, toothed at the lateral edge.—Four species have been discovered in Jamaica:

1. LAURIFOLIA.

1. LAURIFOLIA. LAUREL-LEAVED.

*Acer scandens foliis laurinis.* Sloane, v. 2, p. 26. *Foliis ovatis, seminibus unilatis glabris, racemis lateralibus.* Browne, p. 231.—*Sycamore.* Barham, p. 185.

Leaves ovate, oblong, rigid; racemes terminal; branches ferruginous, downy.

Stem shrubby, climbing, with loose, reflex-diverging, roundish rugged branches. Leaves petioled, ovate-lanceolate, acute, entire, coriaceous-membranaceous, nerved, smooth. Racemes paniced, terminating branches, and twigs decussate, ferruginous-tomentose, peduncles commonly one-flowered, ferruginous, short, yellow. Leaflets at the base of the peduncles two, opposite, minute, tomentose. Calyx five-leaved; leaflets ovate-lanceolate, acuminate, with two round, depressed, green glands, fastened to the base. Petals spatulate. Anthers elliptic. Germ three cornered, trifid at the tip: styles subulate, short; stigmas dilated, as it were halved. One of the three capsules is usually abortive; the wings three or four times longer than the capsules.

This shrub has a stalk no bigger than a swans quill, covered with a whitish coloured smooth bark, having a pretty large pith. It rises by and turns round any plant it comes near, mounting several feet high, sending forth foot-long branches, with twigs standing opposite one to the other, the leaves, on quarter inch long footstalks, are three inches long and half as broad, in the middle, where broadest, ending in a point, having one middle rib and several transverse ones, being smooth, hard, thin, and dark green.—The tops of the small branches, for three inches in length, are beset with yellow flowers, spike fashion. It grew plentifully on the banks of the Rio Cobre, on the road to Passage Fort, and in a gully by the church in St. Dorothy's.—*Sloane.*

I have often seen, as I have rode along, a small plant among the bushes, growing about six or seven feet high, which seemed not to be able to support itself, but yet did not climb about any thing: It had a very small stalk, and but few leaves, as large as a laurel, but thin and softer. At the top were branches of yellowish flowers; afterwards came winged seed-vessels, exactly like the sycamore.—*Barham, p. 185.*

2. LONGIFOLIA. LONG-LEAVED.

Leaves oblong, acuminate, rigid, shining; panicle terminating, branches spreading very much.

3. FULGENS. SHINING.

*Acer scandens minus, apocyni facie, folio subrotundo.* Sloane, v. 2, p. 27, t. 162, f. 2. *Foliis orbiculatis, petiolis biglandulis, seminibus unilatis rugosis, racemis subumbellatis alaribus.* Browne, p. 231.

Leaves subovate, downy underneath; racemes cross armed; peduncles umbelled.

This has slender winding stalks, which rise five or six feet high. The flowers grow in a round bunch at the extremity of the branches, and are of a brownish yellow colour. The leaves are ovate with a point, villose beneath, shining, smooth on the upper surface. A solitary branch comes forth from the axils, furnished with leaves, producing at top, in a kind of umbel, several filiform, simple, one-flowered, peduncles. Seeds erect, the outer angle decreasing to an edge, the inner more blunt, putting forth a small

small sharp membranaceous angle next the pistil; by the seeds, next the base, are three small appressed toothlets.

Sloane says the stalk is as big as a goose quill, that the leaves stand opposite, and that it grew on the entrance of the red hills, on the Guanaboa road.

4. CÆRULEA. BLUE.

Leaves elliptic ovate, acute, glabrous; racemes terminal paniced.

Stem sarmentose, climbing; branches round, with a whitish bark, somewhat rough. Leaves quite entire, glaucous, on short petioles; peduncles short, bracted. Calyx five-parted half way down. Flower blueish. Filaments short, equal, styles erect. Fruit somewhat woody and tomentose, with the wing of a sulphur glaucous colour.

Browne says all the species grow in the gravelly hills about Kingston and St. James's, they are all-climbers, rising by slender stems to seven, ten, or fourteen, feet high. They differ from the *malpighia* chiefly by the nakedness of their seeds.

BANJHAM—See EGG PLANT.

BAOBAB.

ADANSONIA.

CL. 16, OR. 5.—*Monodelphia Polyandria*. NAT. OR.—*Columnifera*.

This was named from M. Adanson, a French surgeon, who resided many years in Senegal, and brought home a curious collection of seeds and plants.

GEN. CHAR.—Calyx a one-leaved perianthium, half five-cleft, cupform, divisions revolute, deciduous: corolla five-petalled, roundish, nerved, revolute, connected by the claws with each other and the stamens: the stamina are numerous filaments united at bottom into a tube, which they crown, expanding horizontally; anthers kidney shaped, incumbent; the pistillum has an ovate germen, the style long, tubulous, variously intorted; the stigmata are numerous (10), prismatic, villous, ray-expanded: the pericarpium an ovate woody capsule, not gaping, ten-celled, with farinaceous pulp, the partitions membranaceous: seeds numerous, kidney shaped, rather bony, and involved in a friable pulp. This genus is nearly allied to the bombax; the fructification differing only in the seeds being covered with meal instead of wool or cotton. It is a native of Africa, and was introduced by Mr. East. There is only one species.

DIGITATA. FINGERED.

Leaves in three or five finger-like divisions.

This tree is called Ethiopian sour gourd, monkies bread, or calabash tree, and is, perhaps, the largest production of the whole vegetable kingdom. M. Adanson says, though the trunk is not above twelve or fifteen feet high, they are from sixty-five to seventy-eight feet round. The lowest branches extend almost horizontally; and as they are about sixty feet in length, their own weight bends their extremities to the ground, and thus form an hemispherical mass of verdure, of from one hundred and twenty to one hundred and thirty feet in diameter. The roots extend as far as the branches; that in the middle forms a pivot, which penetrates a great way into the earth, the rest spread near the surface. The flowers are in proportion to the size of the tree; and



and are followed by an oblong fruit, pointed at both ends, about ten inches long, five or six broad, and covered with a kind of greenish down, under which is a ligneous rind, hard and almost black, marked with rays which divide it lengthwise into sides. The fruit hangs to the tree by a pedicel two feet long and an inch diameter. It contains a whitish, spongy, juicy, substance; with seeds of brown colour, and shaped like a kidney bean. The bark of this tree is nearly an inch thick, of an ash-coloured grey, greasy to the touch, bright, and very smooth; the outside is covered with a kind of varnish; and the inside is green, speckled with red. The wood is white and very soft; the early shoots are green and downy. The leaves of the young plants are entire, of an oblong form, about four or five inches long, and almost three broad towards the top, having several veins running from the middle rib; they are of a lucid green colour. As the plants advance in height, the leaves alter, and are divided into three parts, and afterwards into five lobes, which spread out in the shape of an hand. In its native soil, the tree sheds its leaves in November, and new ones begin to appear in June. It flowers in July, and the fruit ripens in October and November. It is very common in Senegal and the Cape de Verd islands; and is found one hundred leagues up the country at Goulam, and upon the sea coast as far as Sierra Leona.

The age of this tree is perhaps no less remarkable than its enormous size. M. Adanson relates, that, in a botanical excursion to the Magdalene islands, in the neighbourhood of Gorée, he discovered some Calabash trees, from five to six feet in diameter, on the bark of which were engraved or cut to a considerable depth, a number of European names. Two of these names, which he was at the trouble to repair, were dated, one the 14th, and the other the 15th century. The letters were about six inches long, but in breadth they occupied a very small part only of the circumference of the trunk; whence he concluded they had not been cut when these trees were young. These inscriptions, however, he thinks sufficient to determine pretty nearly the age which these calabash trees may attain; for even supposing that those in question were cut in their early years, and that the trees grew to the diameter of six feet in two centuries, as the engraved letters evince, how many centuries must be requisite to give them a diameter of twenty-five feet, which perhaps is not the last term of their growth. The inscribed trees mentioned by this ingenious Frenchman had been seen in 1555, almost two centuries before, by Thievet, who mentions them in the relation of his voyage to Terra Antarctica or Australia. Adanson saw them in 1749.

The virtues and uses of this tree and its fruit are various. The negroes of Senegal dry the bark and leaves in the shaded air, and then reduce them to a powder, which is of a pretty good green colour. This powder they preserve in bags of linen or cotton, and call it *lilla*. They use it every day, putting two or three pinches of it into a mess, whatever it happens to be, as we do pepper and salt: but their view is, not to give relish to the food, but to preserve a plentiful and perpetual perspiration, and to temper the too great heat of the blood; purposes which it certainly answers, as several Europeans have proved by repeated experiments, preserving themselves from the epidemic fever, which, in that country, destroys Europeans like the plague, and generally rages during the months of September and October, when, the rains having suddenly ceased, the sun exhales the water left by them upon the ground, and fills the air with a noxious vapour. M. Adanson, in that critical season, made a light ptisan of the leaves of the baobab, which he had gathered in the August of the preceding year, and had dried in the shade, and drank constantly about a pint of it every morning, either before or after breakfast, and the same quantity of it every evening after the heat of the

sun began to abate; he also sometimes took the same quantity in the middle of the day, but this was only when he felt some symptoms of an approaching fever. By this precaution he preserved himself, during the five years he resided at Senegal, from the diarrhoea and fever, which are so fatal there, and which are, however, the only dangerous diseases of the place; and other officers suffered very severely, only one excepted, upon which M. Adanson prevailed to use this remedy, which, for its simplicity, was despised by the rest. This ptisan alone also prevents the heat of urine, which is common in those parts, provided the person abstains from wine.

The fruit is not less useful than the leaves and the bark. The pulp that envelopes the seeds has an agreeable acid taste, and is eaten for pleasure: it is also dried and powdered, and thus used medicinally in pestilential fevers, the dysentery, and bloody flux: the dose is a drachm, passed through a fine sieve, taken either in common water, or in an infusion of the plantain. This infusion is brought into Europe under the name of *terra sigillata lemnia*. The woody bark of the fruit, and the fruit itself, when spoiled, helps to supply the negroes with an excellent soap, which they make by drawing a ley from the ashes, and boiling it with palm-oil that begins to be rancid.

The trunks of these trees, when decayed, are hollowed out and made the burying place of esteemed characters among the negroes in Africa, and it has been observed, that the bodies shut up in these trunks become perfectly dry without rotting, and form a kind of mummies without embalement. This tree is propagated from seeds.

#### BARBADOES CHERRY.

#### MALPIGHIA.

CL. 10, OR. 3.—*Decandria trigynia*. NAT. OR.—*Trihilata*.

This genus was named by Plumier in honour of Marcello Malpighi, professor of medicine at Bologna, the famous author of *Anatome Plantarum*.

GEN. CHAR.—Calyx a five-leaved perianthium, erect, very small, permanent, converging, it has two melliferous glands, oval and gibbous, fastened to the calycine leaflets on the outside and at bottom; the corolla has five petals, kidney-form, large, plated, ciliate, spreading, concave, with long linear claws; stamina are awl shaped filaments, placed in a cylinder, erect, united below, small; anthers cordate; the pistillum has a roundish germen, small, with three filiform styles; stigmas blunt; the pericarpium is a globular berry, torulose, large, one-celled; the seeds are three, bony, oblong, blunt, angular, with an oblong blunt kernel. There are many species, of which seven have been found in Jamaica.

#### 1. GLABRA. SMOOTH.

*Arbor baccifera, folio subrotundo, fructu cerasino sulcato rubro poly-pyreno, ossiculis canaliculatis*. Sloane, v. 2, p. 106, t. 207, f. 2.—*Fruticosa erecta, foliis nitidis ovato-acuminatis, floribus umbellatis, ramulis gracilibus*. Browne, 230.

Leaves ovate, quite entire, smooth, peduncles umbelled. Flowers in axillary or terminating bunches, about four flowers in each. The pedicels have a single joint, calyx incurved, petals sub-cordate. Stigmas simple with a little drop.

This

This tree rises to about fifteen feet high, having several trunks covered with a clay coloured smooth bark, and many branches spreading out on all sides, and forming a pleasant round head, sending out twigs two and two opposite to each other, covered with opposite leaves; for the most part the leaves are roundish, smooth, very green, having very small footstalks an inch long and three quarters broad, among which come out the flowers, standing on half inch long footstalks, consisting of five petals, each of which is made spoon-fashion, being narrow at the beginning and round or broad towards the end, and of a purple colour. To these follow, on inch long footstalks, round red fruit of the bigness of a cherry, smooth skinned, having one or more furrows or channels on its outside, and containing within a reddish, sweetish, not unpleasant, copious juicy pulp, several triangular falcated stones, whose sides are so accommodated to one another as seem to make one round one, with several furrows on its outside. Being thought a pleasant fruit, they are planted in most gardens, where, some small time after rain, one never misses ripe fruit.

They are not only used by way of desert, but likewise by sick people, whose stomachs languish; they dispel wind, and take away the qualmsiness of the stomach. If given with sugar, Piso says, they are good for the breast.—*Sloane*.

2. PUNICIFOLIA. POMEGRANATE LEAVED.

*Fruticosa erecta, ramulis gracilibus patentibus, floribus solitariis.*—*Browne*, p. 230.

Leaves ovate, quite entire, smooth; peduncles one-flowered.

This scrubby tree rises ten or twelve feet, dividing into several slender spreading branches, covered with a light brown bark. The flowers are produced in small umbels at the end of the branches, upon short peduncles. Corolla pale rose colour. This shrub has much the appearance of a pomegranate plant. The fruit is of the same size and form as the common English cherries; very succulent, of a light reddish colour, and a pleasant sub-acid taste. It makes very agreeable tarts and excellent jellies.—*Browne and Long*.

3. VERBASCIFOLIA. MÜLLEIN-LEAVED.

Leaves lanceolate, ovate, tomentose, quite entire, racemes terminating.

4. NITIDA. GLOSSY.

*Humilis et minus divisa, foliis ovatis nitidis, baccis durioribus.*—*Browne*, p. 230.

Leaves lanceolate, quite entire, smooth, spikes lateral.

This shrub grows about three feet high. Stem upright, round, even; branches decussated, upright, round, covered with a shining bark. Leaves decussated, opposite, oblong, blunt, with a convex margin, nerved, veined, firm, pale green, shining; on short petioles. Racemes axillary, shorter than the leaves, many flowered; flowers peduncled yellow. Berry three-lobed, three-seeded, blood red. *Browne* says it is common in the hills of St. Elizabeth, and bears large hard berries, which are said to be much used by turkies and other large fowls.

5. URENS. STINGING.

*Arbor baccifera, folio oblongo subtilissimis spinis subtus obsito, fructu*  
H cerasino

*cerasino sulcato polypyreno, ossiculis cannulatis.* Sloane, v. 2, p. 106, t. 207, f. 3. *Viminea foliis oblongis hispida, racemis alaribus.* Browne, p. 229.

Leaves oblong, ovate, with rigid decumbent bristles underneath, peduncles one-flowered aggregate.

This is called *stinging Barbadoes*, or *cowhage* cherry; it rises with a strong upright stem about three feet high, covered with a brown bark, sending out several side branches which grow erect. Leaves ending in acute points, sessile, covered with fine bristles, which do not appear unless closely viewed; these are double pointed, and sustained by pedicels of the same fragile transparent substance with themselves, descending from the middle of them; these are easily broken, but the bristles enter pretty deep, and stick close to whatever has forced them off. The pale purple flowers come out upon long slender peduncles from the axils at each joint, four, five, or six together, in a sort of whorl. The three styles stand apart. It grows about the towns of Kingston and St. Jago de la Vega, in great plenty.

#### 6. CRASSIFOLIA. THICK LEAVED.

*Arborea, foliis subrotundis, alternis, inferne sublanuginosis; spicis crassis compositis terminalibus.* Browne, p. 231.

Leaves ovate, quite entire, tomentose underneath, racemes terminating.

Browne calls this the *larger locus-berry* tree. The upper branches terminate in loose bunches of yellow flowers; but each of the divisions is simple, as well as the top of the main supporter, which terminates also in a single spike. The glands of the calyx or cup are remarkably distinct in this species, which seems to have all the habit and appearance of a *cominia*.—Browne.

#### 7. CORIACEA. LEATHERY.

*Tilia affinis laurifolia, arbuti floribus albis racemosis odoratis, fructu pentagono.* Sloane, v. 2, p. 20, t. 163, f. 1. *Arborea floribus spicatis, foliis ovato acuminatis.* Browne, 230.

Leaves ovate, acute, entire, smooth on both sides, racemes terminating spiked.

This tree, which Browne calls *locus-berry*, rises about thirty or forty feet high, by a thick trunk, covered with a clay coloured furrowed bark. It is common in the lower hills of Liguanea. The leaves come out irregularly on small footstalks, and, while young, are covered on both sides with down, but this falls off gradually, and they appear pretty smooth and shining after a short time. There is a remarkable stipula, or ear, at the ala of every leaf, which, with its opposite, seems to embrace the stalk. On the ends of the twigs come out the flowers several together, white, and very sweet scented, succeeded by the seeds, two of which are generally abortive.—Sloane and Browne.

All the above species are easily propagated from seeds.

BARBADOES GOOSEBERRY—See PRICKLY PEAR.

BARBADOES.

## BARBADOES PRIDE, OR FLOWER FENCE.

## CÆSALPINIA.

CL. 10, OR. 1.—*Decandria monogynia*.NAT. OR.—*Lomentaceæ*.

This genus is named in honour of Andreas Cæsalpinus, chief physician to Pope Clement VIII.; the father of systematic arrangements in plants. He died at Rome, 1602.

GEN. CHAR.—Calyx, a one-leafed five-parted perianthium, tube short, segments oblong, deciduous, the lowest longer than the rest, slightly arched; the corolla has five-petals, inserted into the throat of the calycine tube, unequal; lamina roundish; stamens ten filaments, inserted into the throat of the calyx, filiform, woolly at the base, declining; anthers oblong, decumbent; the pistillum, has a superior germen, linear-oblong, compressed, attenuated at the base; style filiform, the length of the stamens; stigma blunt; the pericarpium an oblong legume compressed one celled; seeds sub-ovate, compressed, flat. This plant belonged to the genus *poinciana*, which is so nearly allied, that Swartz united it to this.

PULCHERRIMA. BEAUTIFUL.

*Senna spuria arborea spinosa foliis alatis ramosis, seu decompositis, flore ex luteo et rubro specioso.* Sloane, v. 2, p. 49. *Aculeata, foliis bipinnatis, floribus craceis pulcherrimis, pedunculis longis spicatis incidentibus.* Browne, p. 225.

Prickly; leaflets oblong-oval emarginate, they and the calyxes smooth; corymbs simple; petals fringed; stamens very long.

It rises with a straight stalk twelve or fifteen feet high, which is covered with a grey bark, and is sometimes as thick as the small of a man's leg, dividing into several spreading branches at the top; which are armed at each joint with two short, crooked, strong spines, and garnished with decompound winged leaves, each leaf consisting of six or eight pair of simple winged leaves. They are of a light green colour, and when bruised emit a strong odour. The branches are terminated by loose spikes of flowers, which are sometimes formed into a kind of pyramid, and at others disposed more in the form of an umbel. The footstalk of each flower is near three inches long; the flower is composed of five petals, which are roundish at the top, but are contracted to narrow tails at the base. They spread open, and are beautifully variegated with a deep red or orange colour, yellow, and some spots of green; and emit a very agreeable odour. The style and stamens are three inches long. After the flower is past, the germen becomes a broad flat pod three inches long, divided into three or four cells by transverse partitions, each including one flattish irregular seed, from which the plant is propagated.

This beautiful plant is a native of both the Indies, and it is doubtful whether it is indigenous, or has been introduced into Jamaica, where it was found by Dr. Houston in woods at a great distance from any settlements. The French call it *poinciade*, or *fleurs de paradis*. Browne says that all parts of the plant are thought to be very powerful emmenagogues, and are frequently used for that purpose among the negroes.

This, I suppose, is so called from their fencing in their plantations with this shrub, which is full of short strong prickles; but they are commonly called in Jamaica *doodle-does*; they grow in all or most parts of America. The flowers are elegantly mixed with red-yellow, and therefore called, by some, Spanish carnation, or wild senna. Sir Hans

Sloane tribes it amongst the bastard senna's, for this comes the nearest of any in America, and, when dried and old, it is very difficult to distinguish one from the other; and as for virtues, I have often experienced it to have the same with that of Alexandria; besides which, a decoction of the leaves or flowers has a wonderful power to move or force the *menstrua* in women. The flowers make a delicate red purging syrup, and the root dyes a scarlet colour. The whole plant is full of short sharp prickles, branching and spreading very large, with beautiful flowers, red mixed with yellow, on which are a great number of tufts like saffron; the leaves, when green, are of the shape of indigo; the pod is in shape of the English broom pods, or like the senna of Alexandria; when ripe and dry it is black, containing five or six flat seeds, cordated, and of a dark-greenish colour. This shrub is fullest of flowers in the months of November and December, and the seed is ripe in January.—*Barham, p. 16.*

A drachm of the powdered seeds of the Barbadoes pride, is said to give ease in the belly-ache, when taken inwardly. For this purpose it has been asserted to exceed opiates or any other medicine yet known, being not in the least unpleasant to the taste, giving quick relief, and making way for gentle laxatives to be exhibited. For obstructions the following has been recommended: take of the root of Barbadoes pride, of the bark of trumpet-tree root, and sarsaparilla root, alike quantity, boil and use the decoction.

*See BRAZILLETO.*

BARBADOES WILD OLIVE—*See WILLOW.*

BARK TREE—*See MAHOG.*

*No English Name.*

BARLERIA.

CL. 14, OR. 2.—*Didynamia angiospermia.* NAT. OR.—*Personate.*

This name was given by Plumier in honour of the Rev. James Barrelier, a Dominican and M. D. of Paris.

GEN. CHAR.—Calyx four-parted, two opposite leaflets larger; corolla one leafed, funnel-form, quinquefid, fifth division deeper; stamina filiform, two very short, capillary; anthers upper oblong, lower withered; the pistil has an ovate germen, style length of the stamens, stigma bifid; capsule acute, two-celled, two-valved, gaping elastically at the claws; seeds two, compressed, roundish. Two species grow in this island:

1. BUXIFOLIA. BOXLEAVED.

Spines axillary, opposite, solitary; leaves roundish, quite entire.

This plant has shrubby stalks, five or six feet high, with strong spines under the leaves. The flowers are produced in whorls toward the upper part of the stalk; these are succeeded by short seed vessels, containing three or four flat seeds. It is said to be a native of Jamaica.

2. PRIONITIS. THORNY.

Spines axillary, pedate, fourfold, leaves roundish, quite entire.

Stem herbaceous, round, stiff. Leaves opposite, running down the petioles, pubescent

bescent underneath. Between the branch and the leaf, a spine with four sharp rays from the centre. Flowers sessile in the axils. Calyxes acuminate-spiny. Two of the four stamens very small at the bottom of the corolla, with little anthers. The capsule has a longish solid point; and bursts without such internal elastic points as are in the justitia. It is a native of the East Indies, and was introduced into the botanic garden, Liguanea, by Mr. East. Both species are propagated by seeds.

## BASIL.

## OCYMUM.

CL. 14, OR. 1.—*Didynamia, gymnospermia.* NAT. OR.—*Verticillatae.*

GEN. CHAR.—The upper lip of the calyx is orbiculated, the inferior one quadrifid; the corolla is re-supinated, with one lip quadrifid, the other undivided; the exterior filament sends out a reflected process at the base.

## BASILICUM.

Leaves ovate, glabrous: calyx ciliate.

The root of this plant is fibrous; the stalk green and quadrangular, not above half a foot high; the leaves oblong and acute. The seeds in each cup are four, small, naked, and oval. The inflorescence a spike. The juice of the leaves is said to be good for sore eyes, and the same given in toddy to women in labour, is said to help forward the birth. It grows every where in the lowlands and savannas.

We have in Jamaica two or three sorts of basil; but that which grows spontaneously, and most common, is that sort which Sir Hans Sloane calls *ocymum rubrum medium*. There is another sort in South America, mentioned by Monsieur Frezier, called *alva haquilla*; a shrub, saith he, which has the scent of our sweet basil, and contains a balm of great use for sores; whereof we saw a wonderful effect at Yrequin, in an Indian, whose neck was deeply ulcerated. I also had the experience of it on myself. The flower of it is long, growing up like an ear of corn, of a whitish colour, inclining to a violet, and is tribed amongst the *legumina*. Basils are spoken against by Dioscorides, Galen, and Chrysippus; but Pliny commends them much, and saith they are good against the sting of scorpions and other venomous serpents, and are accounted a very great cordial, and good against pains of the head, &c.—*Barham, p. 17.*

## BASKET-WITHE.

## TOURNEFORTIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Asperifoliae.*

This was so named by Linneus, in memory of Joseph Pitton Tournefort, the famous author of an elegant arrangement of plants.

GEN. CHAR.—Calyx a five-parted small perianthium, segments awl-shaped, permanent; corolla one-petalled, five-cleft, segments acuminate; stamina awl-shaped filaments, length of the tube, and placed in the mouth; germen globose, style simple, club-shaped, stigma circumsised; the pericarp a globular berry, two-celled, perforated by two pores at top; the seeds four, subovate, seperated by the pulp. Six species grow in this island:

1. HUMILIS,

## 1. HUMILIS. HUMBLE.

*Reclinata diffusa, et hirsuta, foliis ovatis, ramulis rectis validis.*—  
Browne, p. 169.

Leaves ovate, acuminate, smooth; petioles reflexed; stem twining.

This plant has low shrubby stalks, which seldom rise more than three feet high, sending out slender woody branches. Leaves rough, dark green, on their upper, but pale on their under, surface. The flowers come out in single axillary spikes, they are white, and succeeded by small succulent berries. This Browne calls the *basket-withe*, and says it grows very luxuriantly, stretching sometimes many feet from the main root. It is generally used for dung-baskets.

## 2. HIRSUTISSIMA. SHAGGY.

*Heliotropii flore, frutex baccifer racemosus, folio rugoso, fido, maximo subrotundo hirsuto, fructu albo.* Sloane, v. 2, p. 108, t. 212, f. 1. *Scandens foliis hirtis rugosis ovatis spicis ramosis.*—  
Browne, p. 169.

Leaves ovate, petioled, pointed; stem rough, haired; spikes terminal, recurved.

The stem is shrubby, somewhat scandent, branched, covered with a ferruginous shagginess. Leaves oblong, entire, nerved, hairy all over, but extremely so beneath. Spikes or racemes very much branched, stiff and straight, spreading a little; flowers white, directed all one way. Filaments very short; anthers blackish green; germ ovate; stigma headed; berry rugged hirsute, when ripe white, two-celled, with two seeds in each cell.—*Scw.*

Browne calls this plant the larger scandent *tournefortia*, and says it raises itself generally by the help of the neighbouring trees, and shoots sometimes to a considerable height in the woods. Sloane observed it only to grow three or four feet high, having a green brittle stem, with irregular eminences on its surface. The leaves are nine inches long, and rugged or corrugated, of a dark green colour, and having a very unsavoury smell.

## 3. VOLUBILIS. TWINING.

*Bryonia nigra fruticosa, racemi ramulis varie implicitis, atque cauda scorpionis instar, in se contortis, baccis albis una vel altera nigra macula notatis.* Sloane, v. 1, p. 234, t. 143, f. 2. *Fruticosa scandens; baccis niveis maculis nigris notatis.* Browne, 170.

Leaves ovate, acuminate, smooth, petioles reflexed, stem twining.

This has a trunk as thick as ones arm, woody, and twining round the neighbouring trees for support, rising to the height of ten or twelve feet, and sending out several slender woody branches. The leaves are smooth, of a dark brown colour, and a little bowed back. At the tops of the twigs come several small crooked branches, variously turned, and twisted into each other, like a scorpion's tail, sustaining in spikes the small white flowers. The berries which succeed are as big as pepper corns, white when ripe, with remarkable black spots, which vary with the number of the seeds, which are sometimes one, two, or more; though constantly four in the more perfect specimens. This plant is common about Kingston and Spanish Town, growing about trees or shrubs.—Browne calls it the climbing *tournefortia*, with spotted berries, and slender branches. *Sloane & Browne.*

## 4. CYMOsa.



## 4. CYMOSA. CYMED.

*Heliotropii flore, frutex, folio maximo oblongo acuminato, glabro.*—  
Sloane, v. 2, p. 109, t. 212, f. 2. *Frutescens humilis, foliis max-  
imis oblongo ovatis rugosis, spicis pendulis rarioribus, ramulis cras-  
sis sulcatis.* Browne, p. 169.

Leaves ovate, quite entire, naked, spikes cymed.

The stem grows three feet high; the branches are herbaceous, angular, grooved, smooth; the leaves ovate-lanceolate, long, petioled, smooth, wrinkled beneath.—Flowers sessile on one side, disposed in two rows, five-cornered, greenish white; the stigma is headed; the berry roundish, white, with one pore at the top, two-celled, with two seeds in each cell. The whole plant is fetid.—*Saw.*

The large leaved shrubby *tournefortia* is sometimes observed in the woods, and may be reckoned rather a plant of a few years standing than a shrub; it rises generally from five to seven or eight feet in height, and is remarkable for the thickness of its upper branches, and the length of its pendulous flower spikes: the leaves are very large, sometimes a foot or more in length.—*Browne.*

## 5. SUFFRUTICOSA. SHRUBBY.

*Thymelea facie fruter maritimus tetraspermus, flore tetrapetalo.*—  
Sloane, v. 2, p. 29, t. 162, f. 4. *Subfruticosa, foliis subincanis ob-  
longis, fronde comosa.* Browne, p. 170.

Leaves sub lanceolate; hoary, stem suffrutescent.

This has woody stalks, and rises six or seven feet high, from which spring many slender woody branches. It has a red brown bark. Leaves about two inches long, and an inch broad in the middle, rounded at each end, but having acute points, of a dark green on their upper surface, but having a white down on their under side, and sitting close to the branches. Flowers terminating and axillary, in slender branching spikes, which are re-curved, and the flowers ranged on one side of them; they are white (Sloane calls them yellow), and succeeded by small succulent berries, containing two or three seeds. Browne calls it the ash-coloured sea side *tournefortia*, and found near the sea side, near the Burrough in St. James's, and seldom rising above three or four feet. This plant seems to be the *suriana maritima*, at least Sloane's plant is referred to that genus.

## 6. BICOLOR. TWO-COLOURED.

Leaves ovate, acuminate, smooth, somewhat wrinkled above, spikes cymed, erect, recurved.—*Saw. PR. 40.*

This shrub is a fathom in height; the trunk round, branched, even; branches alternate, almost upright, round, smooth; leaves alternate, entire, nerved, veined, smooth on both sides, somewhat wrinkled above, and sometimes, but very seldom, rough-haired, even beneath and pale; hence the trivial name of bicolor; petioles of a middling length and even. Spikes terminating, branched; branchlets re-curved, rough haired, many flowered; calyx even; corollas greenish white, with a hirsute hoary tube. It is a native of Jamaica in coppices.—*Saw.*

BASTARD-

## BASTARD ALOE.

## ALETRIS.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Liliaceæ*.

This name is derived from a Greek word, signifying to grind.

GEN. CHAR.—No calyx; corolla one-petalled, funnel shaped, semisexfid, much wrinkled; stamina awl-shaped filaments, inserted into the base of the divisions; anthers oblong, erect; germen ovate; style subulate, stigma trifid; capsule three-cornered, acuminate, three-celled; seeds very many. A variation of the hyacinthoides is the only species of the genus in this island at present, the capensis, another species, being lost; both were introduced by Mr. East.

HYACINTHOIDES. HYACINTH-LIKE.

Stemless, leaves lanceolate, fleshy, flowers geminate.

The Guinea *aletris* has all the leaves lanceolate, flat, and erect. The leaves of both the varieties are pale green, with bands of a darker green. It has thick fleshy roots, creeping far where they have room. The leaves arise singly from the root, and are near a foot and a half long, stiff, waved, and proceeding immediately from the root, as do the flower stems, which, when the roots are strong, are often a foot and a half high, adorned almost the whole length with flowers of a clear white, seldom continuing in beauty more than two or three days. This is a very hardy plant, propagates itself fast by its creeping roots, and delights in a light gravelly soil.

BASTARD BREADFRUIT—See JAACK.

## BASTARD BRYONY.

## CISSUS.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Hederaceæ*.

This is derived from a Greek word for ivy.

GEN. CHAR.—Calyx—the involucre, many leaved, small; the perianth one-leaved, flat, short, obscurely four-cornered; corolla four-petalled, nectary a rim surrounding the germ; the stamens the length of the corolla, inserted into the nectary, anthers roundish; the pistillum has a roundish germen, obtusely four-cornered, retuse, the style the length of the stamens, stigma simple, acute; the pericarpium a round shining umbilicate berry; the seed a roundish stone. Four species grow in this island:

1. SICYOIDES. SICYOS-LIKE.

*Bryonia alba geniculata, violæ foliis baccis è viridi purpurascentibus.*  
Sloane, v. 1, p. 233, t. 144, f. 1. *Scandens, foliis oblongo ovatis*  
*ad margines denticulis setaceis refertis.* Browne, p. 147, t. 4, f.  
1, 2.

Leaves sub-cordate naked, bristly serrate, branchlets round.

Stem frutescent, geniculated, herbaceous at top, scandent, subdivided, divaricating, rooting, round, bloody dotted, smooth. Leaves petioled, alternate, cordate, ovate, setaceous serrate, with the serratures distant and pressed close, nerves, smooth on both sides.

sides, somewhat succulent, of a dark green colour. The flowers yellow, heaped in form of an umbellise; the branches spreading from a centre, equal, dichotomous; the pedicels one-flowered. At the divisions of the peduncles are four small scales.—Petals inserted within the rims of the calyx, broader at the base, ovate, reflex, deciduous, yellow. Nectary a yellow four-parted rim, surrounding the germen. Filaments inserted between the divisions of the nectary and deciduous; anthers orange; style subulate; berry oblong, black. This plant is common in the lowlands, and found climbing upon penguin fences, and other low bushes.

## 2. TRIFOLIATA. THREE LEAVED.

*Bryonia alba triphylla maxima*. Sloane, v. 1, p. 233, t. 144, f. 2.—  
*Triphylla scandens, foliis ovatis subdentalis, petiolo communi marginata, caliculis, majoribus*. Browne, p. 147.

Leaves in threes, roundish, hairy, slightly toothed; branches with membranaceous angles.

Stem suffrutescent, about the bigness of a goose-quill, climbing, having five or six angles, knotted, rooting, branched, green, the angles slightly winged; branches herbaceous, lax. Leaves three, always together, at a crooked joint, on very long pentangular petioles, with opposite clavicles, the leaves are smooth, and of a yellowish green colour. Leaflets on short petioles, ovate, acute, the lateral ones oblique, serrate, nerved, smooth on both sides. Stipules at the base of the petioles roundish. Flowers umbelled, blood red. Common peduncle opposite to the petiole short. Umbel four-cleft; involucre formed of the fading scales of the base. Peduncles partial, two-parted; with the terminating umbellules and pedicels coloured. Calyx, or rim of the germ, entire, and four-cornered; petals minute, red, deciduous; nectary yellow; filaments inserted into it and subulate; anthers yellow; germ depressed; style four-cornered; stigma yellow; berry roundish, one-seeded.—This is also a native of Jamaica, and climbs high upon the branches of trees.

## 3. QUADRANGULARIS. FOUR-ANGLED.

Leaves cordate, fleshy, serrate toothed, stem four-cornered, somewhat swelling.

Stem very long, climbing, smooth, and even. Leaves alternate, petiole 1, subhirsute, smooth on both sides, sharply and remotely serrate. Petioles round. Tendrils opposite to the leaves; the root is tuberous. It is a native of the East Indies, and was introduced by Mr. East.

See VINE SORREL.

## BASTARD BULLY TREE.

## BUMELIA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Dumosa*

This name is derived from the Greek name of a tree supposed to be a sort of ash.

GEN. CHAR.—Calyx a five-leaved perianthium, leaflets roundish ovate, incumbent, concave; corolla one-petalled, five-cleft or five parted, tube very short, round, border five-parted, parts ovate, entire, spreading, concave, with two little scales at the base of each; the nectary five-leaved, segments smaller than the corolla, at the base of the filaments, surrounding the germ, acute; filaments inserted into the corolla, at the bottom of the tube, between the lower segments, the length of

of the tube; anthers ovate, erect; germen superior, ovate; style thick, erect, shorter than the stamens; stigma obtuse; the pericarpium an oval drupe; the seed a single kernel, oblong, smooth, with a lateral scar. This genus has been separated from the *achras* by Swartz, although it is thought the following species more properly belong to the latter genus:

1. NIGRA. BLACK.

*Fructibus minoribus glabris per ramos sparsis, seminibus subrotundis, cicatricula minima ovata.* Browne, p. 201.

Branches wand-like spreading, leaves terminating oblong, lanceolate, smooth, waved about the edge, branchlets flower-bearing.

Browne calls this bastard bully tree. He only describes the fruit, as above, small, smooth, and scattered over the branches, containing roundish seeds, marked with a very small ovate scar. This is the common bastard bully tree, a native of Jamaica, and but an indifferent timber; it is the black mastic of Barham.

2. RETUSA. RETUSE-LEAVED.

*Fructu minori glabro, foliis ovatis, floribus confertis axillaribus.* — Browne, p. 201.

Leaves opposite, wedge-ovate, retuse, rigid, flowers crowded, axillary.

Browne calls this the mountain bastard bully tree.

3. PALLIDA. PALE.

Branches upright, leaves terminating, elliptic, obtuse, flowers crowded, lateral.—Sw. Pr. 49.

4. MONTANA. MOUNTAIN.

Leaves scattered, alternate, oblong, obtuse; flowers axillary, peduncled.—Sw. Pr. 49.

5. ROTUNDIFOLIA. ROUND LEAVED.

Leaves sub-orbiculate margined, veined, coriaceous, smooth on both sides.—Sw. Pr. 50.

Barham calls this tree white mastic, and says, "I met with a great many of these trees in falling a piece of ground in the mountains above Guanaboa, in the parish of St. John. I observed, they bore a fruit much of the shape and bigness of cashew-stones, and the gum that came out of it was in small little drops, white, and of the scent of mastick, for which reason the tree is called so; and I believe it is as good as any mastick whatever, and of the same virtues."—Barham, p. 207.

6. SALICIFOLIA. WILLOW-LEAVED.

*Salicis folio lato splendente, arbor, floribus parvis pallide luteis pentapetalis à ramulorum lateribus confertim exsertentibus.* Sloane, v. 2, p. 98, t. 206, f. 2. *Folius oblongis nitidis utrinque productis, floribus confertis, fasciculis infra frondes sparsis.* Browne, p. 201, t. 17, f. 4.

Leaves lanceolate-ovate, acuminate; flowers crowded, axillary, and lateral.

This is called the willow-leaved sapota, white bully tree, and galimeta wood, it grows to a considerable height, and is generally furnished with many branches towards the top.

top, rising irregularly and at distant stages. It is commonly observed to grow straight and tapering, and most frequently found in the lower lands, especially about Liguanea and Manchioneal. The wood is pale yellow, and reckoned a good timber; but is mostly used in such parts of buildings as are least exposed to the weather. The berries are black, smooth, and very small, and no part of the plant milky.—*Browne*.

The flowers of this tree come out in tufts from the branches, and are pale yellow; Sloane says they grew plentifully in the red hills. This is Barnham's bastard bully tree, of which he says—"I remember, after the great fire at Port Royal in Jamaica, in 1703, jesuits bark was so scarce that we gave four pounds for a pound of it, and some practitioners could not get any for love or money; upon which, they made use of the bark of this tree, for intermitting fevers, with good success, but were forced to give twice or thrice the quantity: Since that, they have found out a bark that every way answers the ends of the jesuits bark, which I shall mention hereafter."\*—*Parham*, p. 25.

See BULLY TREE.

BASTARD CABBAGE.—See CABBAGE BARK.

## BASTARD CEDAR.

## BUBROMA.

CL. 18, OR. 2—*Polyadelphia Dodetandria*. NAT. OR.—*Columnifera*.

This derives its name from two Greek words, signifying an ox and fool.

GEN. CHAR.—Calyx three-leaved, leaflets ovate; corolla, five petals, claws large, inserted into the nectary, borders semibifid; nectary pentaphyllous, bell-shaped; the stamina grow from the nectary like rays, alternate with its segments, anthers on each filament three; germen superior roundish; style filiform, stigma simple; pericarpium sub-globular, woody, mucicate, ending in a five rayed star, punched with holes, five-celled, valveless, not opening; seed very many, angular, fixed in a double row to a central sub-globular receptacle.

## GUAZUMA.

*Alni fructa, morifolia arbor, flore pentapetalo flavo.* Sloane, v. 2, p. 18. *Foliis oblongo cordatis, serratis, ab altero latere majoribus; fructu minori scabro.* Browne, p. 306.

This tree rises to the height of forty or fifty feet, having a trunk as large as a man's body; it has a very strong root, and the bark is of a dark brown colour and furrowed, sending out many branches towards the top, spreading wide in every direction. It is naturally straight, but generally found crooked, from being frequently topped and eaten by cattle. The leaves are oblong heart-shaped, alternate, near four inches long and two broad near the base, ending in acute points, serrate, having a strong mid-rib, and several transverse veins, of a bright green on their upper, and pale on their under surface, on short petioles, the flowers are in axillary clusters, small, and of a yellow colour. The flower is described as follows by Swartz: The calyx four-leaved, leaflets, bent down; petals dusky yellow, five-nerved, pubescent, with muciculate awns or bristles.

bristles inserted into the divisions of the petals, and longer than them, upright and purple; nectary goblet shaped, smaller than the petals, inclosing the pistil, five-cornered and five-toothed; filaments inserted into the base of the nectary, and of the same length with it, trifid from the middle, lying under the arched petals; anthers three deflex simple; germ ovate, rough at the end, echinate when viewed through a magnifying glass; style the length of the stamens; stigma five-cleft; fruit hard, rugged all over with tubercles, the rind perforated like a sieve; seeds ovate, unequal. The decoction of the inner bark is gelatinous, like that of the elm in Europe, and is deemed a cure for the leprosy; Swartz mentions it as being celebrated for its efficacy in curing the coco bay or elephantiasis, or joint evil.

From the similitude of this tree to the elm, it is called by the French Orme d'Amérique, and Bois d'Orme. It is a native of Jamaica, and peculiar to the lowlands, forming a very agreeable shade for cattle, and frequently supplies them with food in dry weather, when all the herbage of the field is burned up, or exhausted; horses as well as cattle being observed to feed very greedily both upon the fruit and foliage of the tree. On this account it is planted in many pastures, and the birds or rats propagate it in all the surrounding hedges, by carrying its seeds among them. The leaves it is thought would answer for feeding silkworms. The seeds are very mucilaginous, and not disagreeable to the taste. The fruit is first green, but turns black and hard in its ripe state. A little before it ripens, it has a pleasant sweet taste, and is frequently eaten by the negroes, either raw, or boiled as a green in their broths. The wood is light, and so easily wrought, that it is often used by coach and chaise makers for their side pieces. It splits freely, and is said also to make good staves for sugar hogsheds. Sloane observes, that earth taken from under these trees raises naseberry seeds the best of any.

To make a good bird lime, take of the inner bark of young bastard cedar, fill a bladder therewith, and bury it in a warm dunghill until it rots, then take and beat it well in a mortar.

Bastard cedar, as it is here so called; for what reason I know not, being in no respect like cedar. Its leaves are in the shape of English hazel; its fruit like the mulberry, first green, and when ripe black and hard, which sheep and cattle delight to eat, and will make them fat. I take this tree to be of the mulberry kind, more than of the cedar: the flowers are like the lime or lindal tree, yellowish, and very odoriferous, smelling like our May or hawthorn flowers.—*Barham*, p. 17.

### BASTARD CHERRY.

### EHRETIA.

CL. 5.—OR. 1.—*Pentandria monogynia*. NAT. OR.—*Asperifolia*.

So named after the ingenious artist and botanist G. D. Ehret.

GEN. CHAR.—Calyx a one-leafed, bell-shaped, perianthium, half five-cleft, obtuse, small, permanent; corolla one-petalled, tube longer than the calyx, border five-cleft; stamina subulate filaments, length of the corolla; anthers roundish, incumbent; the pistillum has a roundish germ, filiform style, obtuse emarginated stigma; the pericarpium a roundish one-celled berry, having four seeds, convex on one side, and cornered on the other.

TIMPOLIX

## TINIFOLIA. TINUS-LEAVED.

*Ceraso affinis arbor baccifera racemosa, flore albo pentapetalo, fructu flavo monopyreno eduli dulci.* Sloane, v. 2, p. 94, t. 203, f. 1.—  
*Arborea, foliis oblongo-ovatis alternis, racemis terminalibus.*—  
 Browne, p. 168, t. 16, f. 1.

Leaves oblong ovate, quite entire, smooth, flowers paniced.

The roots of this tree spread all around on the surface of the earth, and send up an upright tree, rising from twenty to thirty feet high; the trunk has a dark brown furrowed bark, with an oblong thick head. Branches unarmed, roundish, subdivided.—The leaves alternate, veined, blunt, smooth, dark green, on short petioles. Panicles terminating, oblong, square. Flowers terminating, numerous, white, small, standing on crooked slender footstalks. The calyx is five-parted, segments of the corolla finally rolled back; filaments larger than the corolla. Berry spherical, at first yellow, then black. It flowers in January and February. This tree is common in the lower lands of Jamaica, and rises to a considerable size in favourable situations. In the church yard of St. Andrew's parish there are two or three trees from forty to fifty feet high, with proportionate thick trunks, and large spreading heads. The berries seldom exceed the size of a large currant, and are frequently eaten. They also serve to feed poultry.

See CURRANT-TREE.

BASTARD GERMANDER—See GERMANDER.

## BASTARD GREENHEART.

## CALYPTRANTHES.

CL. 12, OR. 1.—*Icosandria monogynia.* NAT. OR.—*Hesperidæ.*

This genus takes its name from two Greek words, signifying a veil and a flower.

GEN. CHAR.—Calyx a one-leafed perianthium, bell-shaped, truncate, toothless, or very obscurely four-toothed, superior, permanent, covered with an orbicular, concave, deciduous, lid: There is no corolla; the stamina are many capillary filaments, inserted into the inside of the calyx at the rim; anthers roundish, twin, small; the pistillum has a roundish germ, fastened to the bottom of the calyx, two-celled, with a few seeds fixed to the partition; style filiform, simple, bent in the length of the stamens; stigma blunt; the pericarpium a globular oblong berry, crowned with the calyx, one-celled; seed single, or few, slightly angular. There are three species, natives of Jamaica, the two first formerly united to the genus myrtus.

## 1. CHYTRACULIA.

*Arborea, foliis ovatis glabris oppositis, racemis terminalibus.* Browne, p. 239, t. 37, f. 2.

Arboreous, peduncles terminating, paniced, trichotomous tomentose, leaves ovate, attenuated at the tip.

Browne says this tree, which is called bastard greenheart, grows chiefly in the parish of St. John, and is reckoned an excellent timber wood, but it seldom exceeds fourteen

or

or fifteen inches in diameter. The leaves are smooth and opposite. The lid is fastened to the calyx laterally, but afterwards turns back, and then the filaments issue forth, which before had been twisted and concealed.

## 2. ZUZYGIUM.

*Fruticosum, foliis ovatis nitidis et ramulis ubique jugatis.* Browne, 240, t. 7, f. 2.

Arborescent, peduncles axillary, trichotomous, spreading, leaves ovate, blunt, branches forked.

This shrub seldom rises above ten or twelve feet in height; the whole is bushy, and bears black berries, crowned with the margin of the cup. These contain four smooth, slightly angular seeds, one or two only of which usually arrive at maturity. The style is longer than the stamens; and the stigma is acute.—*Browne*.

## 3: RIGIDA. RIGID.

Arborescent, peduncles solitary, axillary, three-flowered, or thereabouts, leaves ovate-acute, convex, veinless, rigid.—*Sw. Pr.* p. 80.

## BASTARD HEMP AGRIMONY.

## AGERATUM.

CL. 19, OR. 1.—*Syngenesia polygamia equalis.* NAT. OR.—*Compositæ*.

This name is derived from two Greek words, signifying never old or ever-green.

GEN. CHAR.—Calyx common, oblong with many lanceolate sub-equal scales; corolla compound uniform; corollæ hermaphrodite, tubulous, numerous, equal, scarcely longer than the calyx; proper one monopetalous, funnel shaped; border quadrifid, spreading; the stamens are short capillary filaments, with cylindric tubular anthers; the pistillum has an oblong germ, style the length of the stamens, stigmas two, slender erect; there is no pericarp; the calyx unchanged; seed solitary, oblong, angular, crowned with a chaffy, five-leaved, upright, awned, calycle; the receptacle naked, convex, very small. This genus differs from eupatorium in the crown of the seeds, and from hidenis in the nakedness of the receptacle.—There are two species, one of which is a native of Jamaica.

## CONYZOIDES. HAIRY.

*Cnysa urtica folia.* Sloane, v. 1, p. 258, t. 152, f. 2.

Leaves ovate, stem hairy.

This has several white strong filaments for roots, with lateral fibres, and a square reddish coloured woody stalk, a foot and a half high. The leaves as well as branches stand opposite, the first on three-quarters of an inch footstalks, hairy, and much serrated, like the leaves of nettles, an inch and a half long, and three-quarters of an inch broad in the middle, where broadest. The flowers and seed come at top, the latter being cannulated, small, black, and pappous, inclosed in small leaves for their calyx, set round them squamatum.—*Sloane*.

## BASTARD



## BASTARD INDIGO.

## AMORPHA.

CL. 17, OR. 3.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

GEN. CHAR.—Calyx a one-leafed perianthium, tubular, and persistent; corolla ovate, concave, erect, scarcely larger than, and placed on the upper side of, the calyx; filaments longer than the corolla, anthers simple; the pistillum has a roundish germ, subulate style the length of the stamens, stigma simple; the pericarpium is a lunate legumen, reflected, larger than the calyx, and tuberculated; the seeds are two oblong-kidney shaped. By the corolla alone, this genus may be distinguished from all known plants; the petals being the banner, and the wings and keel wanting, which is very singular in a papilionaceous corolla. There is only one known species, a native of Carolina, and introduced by Mr. Wiles, in 1798.

FRUTICOSA. SHRUBBY.

It rises with many irregular stems to the height of twelve or fourteen feet in its native soil, in Jamaica it seldom exceeds four or five feet. It has very long winged leaves, in shape like those of the common acacia, they are of a pleasant green colour, beautifully pinnated, and terminate by an odd one. The flowers are produced in long slender spikes, they are small, and of a deep purple colour, which it throws out plentifully in this island every year, and makes a very shewy appearance, but produces no seed, though easily propagated by cuttings, or laying down the young branches. It thrives best in cool situations. This shrub grows naturally in Carolina, where formerly a coarse sort of indigo was made from the young shoots, whence the plant took its name.

## BASTARD IPECACUANHA.

## ASCLEPIAS.

CL. 5, OR. 2.—*Pentandria digynia*. NAT. OR.—*Contortæ*.

This is named from Æsculapius, the god of medicine.

GEN. CHAR.—Calyx a permanent perianthium, five-cleft; corolla monopetalous flat or reflex, divided almost to the base into five oval acuminate segments, reflex, but the points turned up; nectaries five, ovate, concave, putting out a little horn; stamina five small filaments, anthers oblong, and affixed to a truncated body; germs two, styles two, stigma common to both; pericarpium a large, oblong, smooth ventricose, foicle, pointed at the extremity, opening lengthways; seeds numerous, imbricate, crowned with a down; receptacle membranaceous.

CURRASSAVICA. CURACOA.

*Apocynum erectum folio oblongo, flore umbellato, petalis coccineis reflexis.* Sloane, v. 1, p. 206, t. 129, f. 4, 5. *Erecta foliis angustis acuminatis verticilliter ternatis, floribus umbellatis terminatricibus.* Browne, p. 183. *Blood flower.* Barham, p. 22.

Leaves lanceolate, smooth, shining; stem simple; umbels erect, solitary, lateral.

This has strong and deep roots, several inches long, the inside white and woody, sending out lateral fibres. The stem from one to three feet high, green, round, upright,

right, pubescent, jointed, milky. The leaves are opposite and decussated, petioled, acute, entire, smooth on both sides. Flowers in umbels; umbellules terminating, or opposite to the terminating leaflet in pairs, peduncled. Involucre none, but only a few subululated leaflets. Peduncle the length of the leaves, pedicels shorter, one flowered. Leaflets of the calyx reflex; nectaries five, round the middle corpuscle, ovate, ear-cowled obliquely inwards, with a little horn from the nectarous base, sabre shaped, bent in towards the genitals. In the middle is a truncate corpuscle, hollowed at the tip, bluntly five-cornered, covered with five scales at the sides, and gaping with as many chinks. Scales hollowed within. Glands five, roundish, black, to which are fixed above, within the scales, hairs of glanduliferous pedicels, in place of anthers; these glands are oblong, pellucid, panduriform, and filled with prolific moisture; styles two, hid within the column; the seeds are attached to the receptacle, fixed at each end; in the middle of the follicle, small, covered with an aril, and crowned with a sessile pappus of long silky down, by which they are fixed in a squammose manner, and which serves for their dispersion. The corolla is of a saffron colour, the nectaries bright yellow, and the umbels being moderately large, give them a beautiful appearance. It grows very common almost every where in Jamaica, and is called *red head* by the negroes. Browne observes, that in the cooler inland pastures the flowers are changed to white, which variety is frequently to be seen.

Barham calls this plant blood-flower, and says, "It is so called from its stopping bleeding when all other remedies have failed; and is so well known in Jamaica that it needeth no particular description. I knew a gentleman that had such a flux of blood, by the piles or *hemorrhoids*, that there was no stopping it, he himself, and all his friends, despairing of his life. At last, he was advised to this flower, which was immediately got (for they grow almost every where), and bruised, and pressed out the juice, and was given with a syringe; by which he was perfectly cured. I had a patient that had a virulent gonorrhoea, and after I had carried off the virulence, and began to use balsamics and restringents, I found it would not stop, and all the medicines I could think of were to no purpose for above twelve months. At last he took a decoction of the flowers, leaves, and stalk, of this plant, twice a-day, for five or six days, and it made him perfectly firm; and some years after he told me, that he never had the least symptom of a gleet, or any other illness attended him in those parts. Lately, an ancient gentleman consulted me, who had a gleet upon him many years, which he apprehended was pure weakness of the vessels, for he was very well in all other respects: I advised him to make a tea of the dried flowers, and drink of it in the room of other tea, and at the same hours, for a month; in which time, he told me, it made him perfectly well, and said it was worth its weight in gold, and believed, if a man could make it known in Europe, he would get an estate by it. I have known many old gleets cured by it; and I question not but it may be as useful to women, for the *fluor albus*, and other excessive discharges."—*Barham, p. 22.*

The following case, which remarkably points out the styptic virtues of this plant, is taken from the manuscript of Dr. Anthony Robinson, who made many ingenious observations on the natural subjects of this island, about the middle of the last century: and whose untimely death, before his manuscripts were properly arranged, was a great loss to science, and to this island; for it is evident, from the specimens of his labours still preserved, that he was a man of real genius, and possessed of uncommon talents for industrious research and just discrimination: "Mr.

" Mr. Thomas Nicol, a practitioner in physic, informed me, upon my telling him of the styptic virtues of the pseudo ipecacuanha, which Barham calls blood-flower: that a mule had by some accident been wounded in the thigh, from which a violent hæmorrhage of blood issued, which, after the ineffectual application of all the styptics in his shop, was stopped instantaneously by a negro applying a handful of the bruised blossoms and leaves of this plant. Another time, by the use of the same plant, applied in the same manner, he saw a jack ass, with a large ulcerated wound, full of maggots, cured effectually; for it immediately killed the maggots, and then cleansing the wound healed it."

The juice of this plant, made into a syrup with sugar, has been observed to kill and bring away worms wonderfully, even when most other vermifuges have failed; it is given to children from a tea to a common spoonful. The root dried and reduced to powder, is frequently used by the poorer sort of people as a vomit, the dose from one to two scruples. To weaken the operation of the root, it may be gently infused in warm water, which, poured off, is mildly purgative; and the root being afterwards dried and pulverised, will form a more suitable and lenient cathartic for infirm or delicate habits.—*Browne and Long*. Many commend the juice of the wild ipecacuanha as an antidote to worms. It operates with violence, both up and down, and I have known it sometimes do wonders. The juice of the leaves and tender stalks, from one to three tea spoonfuls for a dose.—*Granger*. The juice of the leaves is often given to persons afflicted with worms, from a tea spoonful to an ounce, for a dose, on an empty stomach. In this way I can vouch for its powerful and salutary effect. When given in large doses it acts as a mild emetic or purgative; and in worm fevers also as a diaphoretic and diuretic. Thus, whilst it expels worms, it brings about a crisis. The roots are white and woody. When given in powder, as a vomit, they act as an emetic; but this is a dangerous practice.—*Wright*. Dr. Dancer, in his Medical Assistant, page 379, second edition, recommends the expressed juice to be injected as a clyster in bleeding piles.

See SWALLOW-WORT.

#### BASTARD LOCUS TREE.

#### CLETHRA.

CL. 10, OR. 1.—*Decandria monogynia*. NAT. OR.—*Bicornes*.

This name is supposed to be derived from two Greek words, signifying to close or shut up.

GEN. CHAR.—Calyx a one-leaved perianthium, five-parted; corolla five oblong petals; stamina ten filaments subulate, antheræ cordate erect; germ small, roundish; style filiform, stigma trifid; the pericarpium is a roundish capsule, three-celled; three-valved; seeds angular. There is only one species, a native of Jamaica, the *tinus occidentalis* of Linnaeus, but transferred to this genus by Swartz.

TINIFOLIA. TINUS LEAVED

*Baccifera arbor calyeulata foliis laurinis, fructu racemoso esculento subrotundo monopyreno pallide luteo.* Sloane, v. 2, p. 86, t. 198.

f. 2. *Arborea, foliis oblongo-ovatis, alternis, superne glabris, subtus*

*tus sub-villosis et nervosis; spicis ramosis, terminalibus.* Browne, p. 214, t. 21, f. 1.

Leaves oblong lanceolate, quite entire, hoary underneath; racemes paniced, spike-shaped, tomentose.

Sloane calls this the *bastard locus tree*, and says it has a very thick trunk, covered with a smooth clay coloured bark, having branches equally spread round about it, which towards their ends are beset with leaves, five inches long, and half as broad. The fruit comes on the ends of the twigs, being a stalk or string, on which grow several green roundish berries. The pulp is sweet, white, mealy, including a hard brownish black stone. The berries are ripe in August, when they fall off the trees, under which they are gathered and eaten, and thought a pleasant desert.—*Sloane.*

Browne calls it the *Volkameria*, with oblong leaves, and says, this shrubby tree is very common in Sixteen Mile Walk, and rises generally to the height of twelve or fourteen feet. It seems to have a near resemblance to the locus berry tree, (see Barbadoes cherry, p. 50,) but it is really very different, for the parts and disposition of the flowers are entirely peculiar. The filaments rise from the bottom of the flower, just about the germen, and are not so long as either the petals or the cup. The flower tops are rather so many bunches composed of simple spikes, rising gradually one above another; but each of the flowers are supported by a subulated stipula, or ear, while young.

We have called this tree by the name of *Volkameria*, to perpetuate the memory of that famous botanist.—*Browne.*

BASTARD MAHOGANY—See MAHOGANY.

BASTARD MAMMEE—See SANCTA MARIA.

### BASTARD MANCHIONEEL.

### CAMERARIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Contorta.*

So named by Plumier, in honour of Joachim Camerarius, a physician and botanist of Nureinberg.

GEN. CHAR.—Calyx five cleft; corolla monopetalous, funnel form, border five-parted; stamina very small, anthers converging; the pistium has two germens, with lateral appendages; styles hardly any, stigmas obscure; the pericarpium has two follicles, horizontally reflected; seeds numerous, ovate, and inserted on the larger ovate membrane at the base, imbricate. There are two species, both natives of Jamaica.

#### 1. LATIFOLIA. BROAD-LEAVED.

*Arborea foliis ovato acuminatis nudis rigidis reflectentibus, folliculis alatis.* Browne, p. 182.

Leaves ovate, acute at both ends, transversely striated.

The branchlets of this tree are mostly forked, or in two divisions. The leaves are quite entire, very shining, rather rigid, petioled, opposite, numerous, somewhat resembling those of myrtle: peduncles one or many flowered, slender, long, axillary,  
or

or from the forks of the branchlets. Flowers small, white; follicles brown, bivalve in their structure, but not opening. Browne says it is frequent in the parishes of Westmorland and St. James, and grows commonly to the height of twenty-nine feet or more, and is said to be a good timber wood, but is full of an acrid milky juice.

2. ANGUSTIFOLIA. SMALL-LEAVED.

Leaves linear.

The stem of this is irregularly branching. Leaves opposite, quite entire, the middle nerve running down; they have two ribs running longitudinally. It grows only about eight feet high, and the flower and fruit are also much smaller than the first species.—The flowers are produced scatteringly at the ends of the branches, and it also abounds with a milky acrid juice. Both plants may be propagated from seeds.

BASTARD MUSTARD.

CLEOME.

CL. 15, OR. 2.—*Tetradynamia siliquosa*. NAT. OR.—*Putamineæ*.

This name is derived from a Greek word, signifying to close or shut up.

GEN. CHAR.—Calyx four-leaved, very small, spreading, the lower leaflet gaping more than the rest; corolla four-petalled; nectarous glands three, roundish, at each division, except one at the calyx; stamina subulate, declining; anthers lateral, descending; style simple; germen oblong; stigmas thickish; pericarpium a long silique cylindric, one-celled, two-valved; seeds many, roundish. There are four known species, natives of this island.

1. SPINOSA. THORNY.

*Sinapistrum Ægyptium heptaphyllum, flore carneo, majus spinosum.* Sloane, v. 1, p. 194. *Assurgens ramosum et spinosum, heptaphyllum; spica multiplici foliolato.* Browne, p. 273.

Flowers six stamened; leaves in seven's and five's; stem thorny.

The root of this plant is deep, large, white, and firmly fixed in the ground by several smaller. The stalk is very strong, round, hairy, and green, rising to about four or five feet high, spreading branches on every side, having fingered leaves standing on long foot-stalks. The leaf is divided generally into seven parts or fingers; they are viscid or clammy, will seem to stick to the hand when you squeeze them, and have a rank disagreeable smell. The stalks and branches have short, green, strong, straight prickles. The flowers come out on every side of the tops of the branches: They are each made up of four long petals of white colour, with some purple thrums or stamina. The pods are small, round, and of pale-green colour, inclosing a great many very small brown seeds.—*Barham*, p. 108.

Browne calls this the *prickly branched sambo*, and says it thrives best in a dry soil.

2. PROCUMBENS. PROCUMBENT.

*Leucoium luteum, sive keiri minimum polygalæ facie.* Sloane, v. 1, p. 193, t. 123, f. 1. *Erecta herbacea, foliis oblongis, floribus solitariis.* Browne, p. 273.

K 2

Flowers

Flowers six stamened; leaves simple, lanceolate, petioled; stems procumbent.

The stem is herbaceous, six inches high. Leaves alternate, small, acute, smooth; the flower is yellow, turning to orange or red. Barham calls this *wall-flower*. It has a large root, the leaves like common milkwort. Browne calls it the *small savanna mustard*, which grows wild in every part of the island, and flowers in November.

2. PENTAPHYLLA. FIVE LEAVED.

*Sinapistrum indicum pentaphyllum flore carneo minus, non spinosum.* Sloane, v. 1, p. 194. *Procumbens pentaphyllum, spica longiore terminali.* Browne, p. 273.

Flowers gynandrous; leaves quinate; stem unarmed.

The erect trifoliated sambo is a small plant, found growing in tufts upon the ground, and seldom runs above eight or ten inches in length; it is, however, more succulent than either of the others, and generally looked upon as a very wholesome green; but it has a bitterish taste, and requires long boiling, and the water's being frequently shifted, to render it palatable. It is deemed a preservative against the dry-belly-ache; and, doubtless, claims a precedency, if any green can be said to be effectual that way. —*Browne*.

Under the name *covers* this plant is described as follows, in Hughes's History of Barbadoes: "This shrubby plant hath several whitish roots, smelling not unlike a raddish. The main stalk, which is of a purplish colour, branches very much near the ground: from the several side branches issue a great many footstalks, whose respective tops from one common centre sustain seven sharp pointed leaves, being almost equally sharp near their common footstalk, where they all join; at which juncture there is a yellowish spot. The flower very much resembles that of a garlic pear tree, consisting of four small spoonlike petals. From the centre of these rises a dark coloured pistil, from whose sides, somewhat higher, issue six purplish stamina, tipped with brown apices; the pistil in the middle still continuing larger than the stamina, bearing upon it the rudiment of the future pod, which, when ripe, is of a flattish shape, of about six inches long, inclosing a great many small seeds. The juice of this plant, mixed with sweet oil, is looked upon to be a sovereign remedy against the pain in the ear, if poured into it warm." —*Hughes' Barbadoes*, p. 210.

In confirmation of the above virtue in this plant, of curing pains in the ear, Dr. A. Robinson, in his manuscript, states as follows: "A gentleman of St. Elizabeth's informed me, that for some years he had been at times afflicted with violent pains in his left ear, so that at last he could hardly hear on that side; he had little or no wax at any time in it, and sometimes felt such an uneasy sensation, as one perceives when a flea or other small insect gets into ones ear; that, a few days before he saw me, he had pulled a living insect out of it. He said, when the pain was most raging he had, by the advice of a negro woman, taken a leaf of the *cleome tertia procumbens pentaphyllum*, &c. of Browne, and, upon squeezing a few drops of it into his ear, he had been instantaneously relieved from the pain."

4. POLYGAMA. POLYGAMY.

*Sinapistrum Indicum triphyllum flore carneo non spinosum.* Sloane, v. 1, p. 194, t. 124, f. 1. *Erectum triphyllum, floribus solitariis alaribus.* Browne, p. 273. *This*

This grows chiefly in moist bottoms, it is pretty simple, and seldom rises above twenty or twenty-five inches.—*Browne*.

This hath a root four or five inches long, small and white, with lateral fibres drawing its nourishment; the stalk is round, green, upright, about two feet long, without any branches, having leaves thinly placed thereon, without any order, standing three always together, on an inch footstalk, about an inch and a half long and half an inch broad in the middle; at the top of the stalk is a spike of tetrapetalous flowers mixed with purple, like the other sorts; after which follows a three-inch long pod, small, round, green, like the other. The whole plant is balsamic and vulnerary: I have seen the very leaves applied to sores, and they would heal them; they give ease in the gout; boiled in oil, remedy cutaneous diseases, especially the leprosy. The leaves, boiled or decocted in water, expel poison, provoke appetite, comfort the stomach, cause expectoration, and expel wind. The juice, with oil, helps deafness, dropped into the ear. The leaves, beaten and applied to the head, cure its aching from cold.—These grow in great plenty in all or most parts of America, even in the worst and poorest grounds, in yards, sides of the highways, and streets, without planting or cultivating.—*Barham*, p. 108.

BASTARD NICARAGUA—See BRASILETTO.

BASTARD NUTMEG—See NUTMEG.

#### BASTARD PLANTAIN.

#### HELICONIA.

CL. 5, OR. 1—*Pentandria monogynia*. NAT. OR.—*Scitamineæ*.

This name is derived from that of the celebrated mountain in Bœotia, sacred to the Muses.

GEN. CHAR.—Calyx. Spathes common and partial, alternate, distinct, with hermaphrodite flowers; there is no perianth; the corolla has three petals, oblong, channelled, erect, acute, equal; nectary two-leaved, on leaflets nearly equal to the petals, the other very short, channelled, hooked, opposite; the stamina are five or six filaments, with long erect anthers; the pistil has an inferior oblong germen, short style, and a long, slender, curved, stigma, with a terminating head; the pericarpium is an oblong, truncate, three-sided, three-celled, capsule; seeds solitary, oblong. This genus is distinguished from *musa* by a tricoccous capsule, and it is doubtful whether it should not be transferred to the class hexandria.—There are two species natives of Jamaica.

##### 1. BITHAL.

*Musa humilior foliis minoribus nigricantibus, fructu minimo erecto.*  
Sloane, v. 2, p. 147. *Spadice erecto, spathis rigidis amplexantibus distichè et alternatim.* Browne, p. 364.

Leaves and spadix radical, spathes distich, cordate; nectary ventricose, bifid at the tip.

This in every respect is of a much smaller growth than the plantain or banana tree, but shoots generally to the height of ten or twelve feet. The leaves are oblong, narrower

flower at both ends, entire, marked with parallel lines, erect, thick, and very smooth; petioles the length of the leaves, or more, round, thick, channelled above; scape upright, the length of the petioles, round, thick, smooth; the spadix simple, upright. The common spathes several, (eight to ten) rigid, cordate, embracing, erect, spreading, acuminate, distich, yellowish, yellowish green below, and purple in their upper brims. Flowers in bundles, concealed within each spathe; partial spathes membranaceous, whitish, the length of the flowers, which are distinct, subsessile, pale or greenish yellow. Corolla cohering to the base, unequal, curved and recurved, as it were, two-lipped: the two upper petals lanceolate, acute, a little reflex at the tip, below the middle converging, and towards the base coalescent with the lower petal, whitish at the base: lower petal scarcely longer than the upper ones, lanceolate, concave, a little recurved, entire and acuminate at the tip, with its base embracing the nectary behind; the nectary is two-leaved, inclosing the filament, and filled with nectareous juice at the base; the leaflet in front is very minute, lanceolate, and fastened to the anterior petal of the corolla.

This beautiful plant grows wild in most of the cooler mountains of Jamaica, and thrives very luxuriantly in every rich and well-shaded gully among the woods. In its growth and leaves it perfectly resembles the plantain and banana, but differs very widely from them in the more essential parts. In the blossoms of this plant we find five perfect filaments shooting from the bottom of the real flower leaf, and one imperfect filament from the nectarium; but, in the others, it is quite contrary, for five of the filaments are imperfect, and the only one that is otherwise rises from the nectarium. *Browne*.—The seeds of the bastard plantain are greedily devoured by hogs.

The stem or body of this plant is somewhat smaller, but equally succulent, with the plantain. I have seen, in this island, very large tracts of land, which once were considerable sugar plantations, but, in length of time, became so exhausted, as not to make any proportionate return to the labour bestowed on them, and have therefore been thrown up and deserted. Where this has happened from a change of seasons, and the want of showers, the disaster is incurable; and such land cannot be restored to fertility, except by the return of favourable weather, or by artificial waterings; the first is scarcely to be hoped for, the second is not always practicable. But there are other lands, which have been worn out with incessant cultivation, and not so destitute of showers. In many places, it is usual to let them lie fallow for two or three years, neglecting what is absolutely requisite during this interval of time; which is to hoe-plough them, once a year at least, before the weeds seed and ripen; so that the rains and dews falling upon them, have only assisted the growth and multiplication of weeds in such manner that they cannot afterwards be exterminated. It has been demonstrated, that water (more particularly rain) is the principal support and *pabulum* of all vegetables. In their state of dissolution, the more rarified particles of the fluid they have imbibed re-ascend into the atmosphere; but much of the remainder becomes earth, affording a solid and actual sustentation and addition to the surface on which it falls. For this reason, probably, in the modern, improved state of husbandry in England, turnips are applied as an excellent manure for impoverished lands. In Jamaica, the same root is not equally fit for the purpose, because it does not grow here to any considerable bulk, nor is it so succulent as in England. I would propose, therefore, to substitute in its room the wild plantain tree, wherever it can be brought to grow.—

This



This plant is, in truth, a vegetable syphon, full of water; and as it never fructifies, so it probably cannot exhaust any soil. A walk of these suckers might be planted on impoverished land in a seasonable year, and suffered to stand for three years; and the ground hoed only till the plants appear to have struck root, and to rise with vigour.—In the third year they might be cut down, and left to rot upon the surface. To support them in the early part of their growth, it is necessary to keep the ground clear of weeds about them. Hoeing performs this, and loosens the earth; which facilitates the penetration of rains and dews through the surface. When they are tolerably well grown, their broad expanding leaves will shade and cool the ground in such a manner, as to preserve it always moist and open, and suppress the ascent of weeds; from this period, therefore, hoeing will not be so necessary. I should not recommend the fruit bearing plantain for this design, as it certainly exhausts land very much; and therefore would add to the evil, instead of removing it.

The stems or trunks of any of these species, cut in long junks, are the best provision that can be laid aboard the homeward bound ships, for support of the live stock. Sheep, goats, cattle, hogs, and poultry, are all fond of it; and, as the stems preserve their succulence for a long space of time, the stock fed with it require little or no water. For the smaller animals the junks are chopped into small pieces. They are stowed behind the mizen chains, where they do not in the least incumber the ship.—*Long, p. 784.*

## 2. PSITTACORUM.

Leaves on the stem rounded at the base, spadix terminating, flexuose, spathes lanceolate, nectary lanceolate, concave, entire.

This plant bears a great resemblance to *canna*, and grows to the height of eight feet, with a simple smooth stem. Leaves ovate-lanceolate, entire, acute, very smooth, marked with parallel nerves; petioles sheathing, smooth; spadix simple; spathes fewer (four to six), alternate, distinct, somewhat remote, divaricated, two inches long, sheathed at the base, acute, coloured blood-red, many flowered: flowers pedicelled, crowded, upright, an inch long, fulvous, on round peduncles, half an inch long; corolla three-sided, two upper petals erect, linear, acute, keeled, converging, joined to the nectary, the uppermost only trifid; the lower petal embracing the upper petals and nectary at the base, a little wider, keeled, ventricose, brownish green at the top: hinder leaf of the nectary the length of the petals, lanceolate, concave, a little curved inwards, acuminate, entire, striated, including the stamens; front leaf many times smaller, awl-shaped, concave, inserted at the base into the lower petal; filaments five, included within the hinder leaf of the nectary, free at the base; anthers linear, two-celled, white; germ three-sided, truncate; style slightly three-sided, filiform; stigma, blunt, three-sided, bent in, pubescent; fruit three-cornered, truncate-depressed, scarlet at top. Swartz says it is a native of this island, in wet parts of the woods, on the highest mountains.

## BASTARD SAFFRON.

## CARTHAMUS.

CL. 19, OR. 1.—*Syngenesia polygamia equalis.* NAT. OR.—*Compositæ.*

This generic name is derived from a Greek word, signifying to purge.

GEN.

GEN. CHAR.—Calyx ovate, imbricated with scales, close below, and augmented with sub-ovate foliaceous appendices at top; corolla compound; stamina capillary; anthers cylindric; germen very short; style longer than the stamens; stigma simple; seecus solitary. There are ten species, one of which has been cultivated in Jamaica.

TINCTORIUS. DYING.

*Folius sessilibus, denticulatis, oblongis, obtusis; caule assurgenti, summitatem versus ramoso.* Browne, p. 314.

Leaves ovate entire, serrate-aculeate.

This plant rises about two feet and a half or three feet high, dividing into many branches. The flowers grow single at the extremity of the branches, of a fine saffron colour. Browne says this plant was introduced into Jamaica by the Spanish Jews, and that it was cultivated in most gardens about Kingston, where the florets were frequently used in broths or ragous. It grows naturally in Egypt, and other warm parts of Asia, and is propagated from seeds.

This plant is well worthy of cultivation for its many virtues; the florets dried give an agreeable colour to several culinary preparations, and are used as an article of dyeing and painting; for which purposes great quantities are annually imported into England from the Levant.

That which grows in America comes far short in goodness to that in England. Here also grow in great plenty the *cnicus*, sive *carthamus sativus*, and *cnicus perennis*.—The flowers of *carthamus* are much used by the Spaniards (who call them bastard saffron) in all their broths, to give them a yellow colour, which they do: they are also used for dying. The seed is what is chiefly used in physic, or rather the kernel within the seed, which, beaten into an emulsion with honeyed water, or with the broth of a pullet, and taken fasting, opens the body, and purges watery and phlegmatic humours, both upwards and downwards; the seeds do the same clysterways; an electuary or lohoch, made with sugar or honey, and almonds and pine-kernels, cleanses the breast and lungs of phlegm; a drachm of the dried flowers taken, cures the jaundice; the confect, called *diacarthamum*, is a very great medicine to purge choler and phlegm, as also watery humours. Parrots delight to feed upon them.—*Barham*, p. 163.

#### BASTARD SENNA.

#### CORONILLA.

CL. 17, OR. 4.—*Diadelphis Decandria.* NAT. OR.—*Papilionaceæ.*

This name is a diminutive from corona, a crown; the flowers crowning the branches in a corymb.

GEN. CHAR.—Calyx simple; corolla papilionaceous; stamina diadelphous filaments, anthers simple; the pistillum has an oblong germen, bristled style, small stigma; the pericarpium is a long legumen, seeds many. This is an exotic, and two species have been introduced, possessing no remarkable virtues.

1. VALENTINA. VALENTINE.

Shrubby leaflets about nine; stipules suborbiculate.

This

This plant rises three or four feet high, and bears its flowers on long axillary peduncles, in close bunches.

2. MINIMA. SMALLEST.

Under shrubby, procumbent; leaflets nine ovate; stipule opposite to the leaf, emarginate; legumes angular, knotty.

This has erect stems, a little branched, round, smooth, about eighteen inches in height, woody at bottom only. The leaves unequally pinnate. Calyx yellowish.—Corolla yellow; peduncles three inches long, supporting twenty to twenty-six flowers. The legumes an inch long, round, deflected, scarcely contracted between the seeds, terminated by the ascending style.

BASTARD SENSITIVE.

ÆSCHYNOMENE.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

GEN. CHAR.—Calyx a one-leafed, bell-shaped, bilabiate perianthium, upper bifid, lower three-toothed; corolla papilionaceous; banner cordated and sub-ringent, the wings sub-ovate, obtuse, shorter than the banner; keel lunate, pointed, the length of the wings; filaments single, nine cleft; anthers small; the pistillum has an oblong villous columnar germen; the style subulate and rising; stigma simple, rather obtuse; the pericarpium is a long compressed, unilocular, jointed pod; seeds solitary between the joints, kidney shaped. Only one species is a native of this island *americana*; three others have, however, been introduced, natives of Egypt and the East Indies, the *grandiflora*, *sesban*, and *aquatica*.

1. AMERICANA. AMERICAN.

*Hedysarum caule hirsuto, mimosæ foliis alatis, pinnis acutis minimis gramineis*. Sloane, v. 1, p. 186, t. 118, f. 3. *Procumbens, foliolis pinnatis mimulis, ramulis tenuissimis*. Browne, p. 295.

Stem herbaceous, hispid; joints of the legumes semi-cordate; leaflets acuminate, bractes ciliate.

This plant is very common in many places of Jamaica. Stem rarely reaches three feet in length, but seldom stands upright; it is sub-divided, round, and somewhat hirsute, delicate and slender. Branches filiform, patulous, round, streaked, hirsute. The hairs are ferruginous at the base. Leaves pinnate, alternate; leaflets sessile, alternate, minute, sickle shaped, serrulate, three-nerved beneath, smooth on both sides. Petioles thicker at the base, round, hirsute. Stipules sickle shaped above and below the petiole, opposite, acuminate, somewhat hirsute. Peduncles longer than the leaves, axillary, solitary, erect. Flowers pedicelled, alternate, whitish or brownish yellow; bractes sessile, ovate-acuminate, serrate, streaked, hirsute at the edge. Calyx upper lip serrate at the tip, or bluntly three-toothed, pubescent at the edge. Corolla, banner streaked, wings obovate, keel ovate, sickle-shaped, upright, bifid. Legume almost upright, pendulous, margined, wrinkled, pubescent.—*Sw. Ob.* 184.

The branches are about a foot long, roundish, filled with a fungous pith, set very thick on the outside with large and fierce hairs, or small prickles, of a white colour, as

were also the twigs whose ends were set with alated leaves, whose pinnæ were very small sharp, or pointed at the end, grassy or striated like grass leaves, and numerous. The flowers come out of a hairy or echinated small leaf, *tanquam ex utriculo*, being many, standing on the ends of branched footstalks alternatively, and after them follow articulated pods, a little crooked, hirsute, or rough, like a half moon. I found it in the inland parts of the island:—*Sloane*.

## 2. GRANDIFLORA. GREAT-FLOWERED.

Stem arborescent, flowers very large, legumes filiform.

This has been called *choiseul pea*. It is a native of the East Indies, and grows in the botanic garden in Liguanea. It rises six or eight feet high, with an upright woody stem, sending out branches spreading a little, round, pubescent. The leaves are pinnate, alternate, scattered, a foot long, leaflets from twelve to eighteen pairs. Flowers pendulous, white, very large. Legume two feet in length, linear, compressed; with a membranaceous isthmus between the seeds, which are roundish. The seeds are agreeable to domestic birds.

## 3. SESBAN.

Stem herbaceous, smooth; legumes cylindric, equal; leaflets obtuse.

This is a native of Egypt, and was introduced by Dr. Clarke; it has woody stems and branches, garnished with smooth leaves, composed of many blunt, opposite, pinnæ. The flowers are small, of a deep yellow-colour, and come out from the axils in long spikes hanging down. The legumes smooth and taper pointed, not jointed.

## 4. AQUATICA. WATERY.

This is also a native of the East Indies, and is called the *swamp-pea tree*; it was introduced by Mr. East, as well as a new species by Mr. Wiles, all of which are enumerated in the Hortus Eastensis.

## BAUM.

## MELISSA:

CL. 14. OR. 1.—*Didynamia gymnospermia*. NAT. OR.—*Verticillate*.

This generic name is derived from a Greek word, signifying a bee, from the fondness of bees for this plant.

GEN. CHAR.—The calyx is arid, flattish above, the upper lip having its dents nearly of equal height; corolla upper lip arched and bifid, the under one, with the middle lobe, heart-shaped; stamina awl-shaped; anthers small; germen four cleft; no pericarpium; seeds four. There are several species, natives of Europe; the most useful has been introduced:

## OFFICINALIS. OFFICINAL.

Racemes axillary, whorled; pedicels simple.

It has fibrous perennial roots; many upright, square, branchy, annual stalks; rising two or three feet high; garnished with oblong, indented, opposite leaves, by pairs, two or three inches long, and half as broad; and from the upper axillas verticillate clusters of small white flowers, upon single footstalks. There is also a kind with *variegated*

gated leaves. It has a pleasant smell, of the lemon kind; and a weak, roughish, aromatic taste. Baum is appropriated to the head, stomach, and uterus; and in all disorders of these parts is said to do extraordinary service. The present practice, however, holds it in no great esteem, and ranks it among the weaker corroborants. It is reputed good in hypochondriac and hysteric disorders of the head and stomach, and by outward applications, to ease the stinging of bees and wasps. Infusions of the leaves in water smell agreeably of the herb, but have not much taste, though, on being inspissated, they leave a considerable quantity of a bitterish austere extract. The green leaf is better than the dry. Infusions of baum do not, like other aromatics, offend the head, as is complained of from sage, &c. It is a grateful diluent drink in fevers, especially if acidulated with limes or lemons. Cold infusions in water or spirit are far better than the colobated-distilled water, and are the best preparations from the plant. On distilling the fresh herb with water, it impregnates the first running pretty strongly with its grateful flavour. When large quantities are subjected to the operation at once, there separates and rises to the surface of the aqueous fluid a small portion of essential oil, which some call *ol. syriæ*, and others *ol. germanis*. It is of a yellowish colour, and of a very fragrant smell.

This plant is cultivated in many gardens in Jamaica, but seldom thrives with that luxuriance that many other plants do.

BAUM GRASS—See LEMON GRASS.

#### BAYBERRY, OR WILD CLOVE.

#### MYRTUS.

CL. 12, OR. 1.—*Icosandria monogynia*. NAT. OR.—*Hesperideæ*.

This is fabled to be so named from Myrsine, an Athenian damsel, and favourite of Minerva, who was metamorphosed into a myrtle.

GEN. CHAR.—Calyx one-leafed, four or five cleft, bluntish, superior, raised internally into a sub-villose ring, permanent; corolla has four or five petals, ovate, entire, large, inserted into the calyx; the stamens are many capillary filaments, the length of the corolla, inserted into the calycine ring, having roundish small anthers; the pistillum has its germ inferior, two or three-celled, the seeds fixed to the partition; style simple, filiform; stigma blunt; the pericarpium is an oval berry, unbilicated with the calyx, one, two, or three-celled; seeds few, kidney-form. There are many species.

ACRIS. SHARP. \*

*Foliis oblongo ovatis oppositis, racemis lateralibus et terminilibus.*—  
Browne, p: 247.

Peduncles axillary and terminating, corymbed, trichotomous, longer than the leaves; leaves elliptic convex, coriaceous, veined, dotted; stem arboreous.

This tree may contend the palm of elegance with most trees. It grows slowly, and to a considerable size. The trunk is handsome, straight, forming a very lofty thick and beautiful pyramid. The bark in the younger trees is brown, then ash-coloured, and finally white, entire, or with large yellow spots; it is very smooth and even, especially in old trees, but here and there hangs down in slender shreds; the flavour is astringent, not without something aromatic. The timber is very hard, red, compact,

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ponderous,

ponderous, and capable of being polished; used for the cogs of wheels in millwork, and in other works where considerable friction is required. The younger branches are acutely four-cornered and green; leaves numerous, quite entire, shining, bright green, with transverse veins, blunt, attenuated into a short petiole, always opposite, commonly three or four inches long, of a very sweet aromatic smell, and, on account of their agreeable astringency, are used for sauce with food. The flowers are small, white with a slight tinge of redness; the berries round, the size of peas, crowned with the remains of the calyx, having an aromatic smell and taste, which render them agreeable for culinary purposes; they contain about seven or eight seeds.

This tree is a native of several of the West India islands, and in Grenada is called *Bois d'Inde*. Browne says it is common in Antigua and Jamaica, as well as Barbadoes, and grows generally to a considerable size; that it fills the woods with the fragrant smell of its leaves, nearly resembling that of cinnamon, but that the bark has no warmth of that sort, though the berries resemble cloves very much, both in form and flavour. It is commonly called *wild cinnamon*, or *wild clove tree*; and is said to be the *bayberry* of Hughes. It does not seem, however, to be very accurately distinguished from the pimenta.

See BASTARD GREENHEART—BLACK CHERRY—MYRTLE—PIMENTA—SILVER TREE.

#### BAY OR SEA-SIDE GRAPE.

#### COCOLOBA.

CL. 8, OR. 3.—*Octandria trigynia*. NAT. OR.—*Iloloracea*.

This was so named by Browne, from the kernel being lobed at bottom.

GEN. CHAR.—Calyx a one-leafed, five-parted perianthium, divisions oblong, obtuse, concave, spreading most widely, coloured, permanent: there is no corolla; stamens subulate, patulous, shorter than the calyx; anthers roundish, twin; the pistil has an ovate trigonal germen, with short filiform spreading styles, and simple stigmas; no pericarp; calyx berried, thickened, converging; involving the seed, which is an ovate nut, acute, one-celled. There are six species, natives of Jamaica.

#### P. UVIFERA. GRAPE-BEARING.

*Prunus maritima racemosa, folio rotundo glabro, fructu minore purpureo.* Sloane, v. 2, p. 129, t. 220, f. 3, 4, 5. *Foliis crassis orbiculatis, sinu aperto.* Browne, p. 209.

Leaves cordate-roundish, shining.

Sloane calls this the *mangrove grape tree*, and says it has several ten or twelve foot high trunks, covered with a reddish brown smooth bark, and furnished with thick, veined, shining, orbicular, leaves, about six inches diameter, standing upon short footstalks. The flowers come out at the wings of the stalks, in racemes five or six inches long; they are whitish, smelling like those of the cherry. After them follow the berries.

It hath a very large leaf in the shape of a horses hoof, and its fruit is as big as a common grape, and, when full ripe, of a blueish black. Until they are thoroughly ripe there

there is no eating them, they are so rough and restringent, curing fluxes; and, when ever so ripe, they have a stipticity and roughness upon the tongue, and binding.—They grow by the side of the sea, and oftentimes in the sea and salt water, like the mangrove, and therefore are called, by some, mangrove grapes.—*Barham*, p. 68.

This tree is very frequent on all the low sandy shores. It is easily propagated in other parts of the country by slips or cuttings. It grows to a large size, and is then looked upon as a beautiful wood for cabinet ware. The berries are about the size of common grapes, and, when ripe, have an agreeable flavour, but the juice is restringent; and for this quality it is remedial in fluxes, particularly such as may ensue from drinking the brackish water, common to the places where they grow adjacent to the sea. There are some other varieties of the *coccolobis*, whose fruit possess the like quality.—*Long*. p. 137.

This is a large crooked and shady tree (the leaves being broad, thick, and almost circular), and succeeds best in sandy places. It bears large clusters of grapes once a year, which, when ripe, are not disagreeable. The stones, seeds, or *acini*, contained in them are large in proportion, and, being reduced to a powder, are an excellent astringent. The bark of the tree has the same property. The grapes, steeped in water, and fermented with sugar, make an agreeable wine.—*Grainger*.

The fruit is so very astringent as to cause a degree of costiveness in some cases dangerous. Of this I have known instances. It may, therefore, be a very useful medicine in some loosenesses. An old lady I was once called to, had nearly lost her life by eating too many of these grapes. She had no motion for three weeks, and it was with great difficulty that any were afterwards procured.—*Dancer's M. A.* p. 389.

#### 2. PUBESCENS. PUBESCENT.

*Arborea foliis orbiculatis integris.* Browne, p. 210.

Leaves orbiculate, pubescent.

Jacquin mentions this species as growing to a very large size in the mountains of Martinico, even to the height of fifty or sixty feet; but Browne says it seldom rises above eight feet in Jamaica, that it is very common between Kingston and Bull Bay.—He calls it the *grape tree with whole leaves*, and adds that the berries of this species are not esteemed.

#### 3. PUNCTATA. POINTED.

*Foliis oblonga ovatis venosis, uvis minoribus punctatis.* Browne, p. 210.

Leaves lanceolate, ovate.

This Brown calls the *chequered grape tree*. It is small, upright, and branched, fifteen feet high. Leaves quite entire, sub-coriaceous, veined, shining, alternate, half a foot long, commonly two or three on each flowering branchlet, on petioles sheathing at the base. Racemes terminating, simple, solitary, erect, scarcely an inch and a half long. Flowers white. Almost the whole receptacle, with a small part only of the calyx, becomes a roundish drupe, of a dark red colour, and a sweetish austere taste.

#### 4. EXCORIATA.

## 4. EXCORIATA. PEELED.

*Montana major arborea, foliis subrotundis, cortice levi.* Browne, 7  
p. 210.

Leaves ovate, branches as it were barked.

This is called the *mountain grape tree* by Browne, who says it grows to a considerable size, is frequent about the Cross in Clarendon, and is looked upon as a fine timber wood.

## 5. TENUIFOLIA. SLENDER LEAVED.

*Frutescens, foliis subrotundis, fructu minori trigono.* Browne, p  
210, t. 14, f. 3.\*

Leaves ovate membranaceous.

This is of humbler growth than any of the former; and the flowers and fruit are smaller. It is also different in having membranaceous and not coriaceous leaves, the petioles surrounded with a membrane instead of a stipule, and not issuing from their back; racemes terminating and quite simple; flowers scattered and pedicelled.—Browne says it grows among the rocks in the hills above Bull Bay. The calyx is seldom divided into more than three parts, and the nut is triangular. The flowers are small, and disposed in simple axillary spikes in all the species; and the bark in all, as well as the kernels, looked upon as powerful astringents.

## 6. NIVEA. SNOW-WHITE.

Leaves elliptic, acuminate, veined, shining above; racemes almost upright.

This grows to the height of twenty feet, is upright, and the boughs form a head.—Leaves quite entire, wrinkled, petioled, alternate, half a foot long; racemes terminating, solitary, simple; flowers small, yellowish. The calyx becomes thick, succulent, and snow white, covering to the middle a three-sided, black, shining nut. The fruit is sweet and pleasant. The French call it *raisinier de coude*.

## BAY TREES.

## LAURUS.

CL. 9, OR. 1—*Enneandria monogynia.* NAT. OR.—*Holoraceæ.*

GEN. CHAR.—*See* Avocado Pear Tree, p. 37.

Besides those described under their English names, the following species of *laurus* have been discovered to grow naturally in this island:

## 1. MONTANA. MOUNTAIN.

Leaves triple nerved, ovate-acuminate, perennial; flowers raceme panicked.—*Sw. Pr.* 65.

## 2. EXALTATA. EXALTED.

Leaves ovate-lanceolate, veined, coriaceous, perennial, flat; racemes upright, compound; calyx cup-shaped, permanent.—*Sw. Pr.* 65.

## 3. TRIANDRA.

\* This plate is also referred to by Dr. Browne as his *erythroxylum* 1. (*Arceolatum*).



3. TRIANDRA. THREE STAMENED.

Leaves broad, lanceolate, perennial, flat; flowers three stamened; fruit covered by the calyx.

4. CORIACEA. LEATHER LIKE.

Leaves ovate-acuminate, flat, veined, shining, coriaceous; racemes upright, shorter than the leaves.

5. MEMBRANACEA. MEMBRANACEOUS.

Leaves oblong, acuminate, veined, convex, coriaceous-membranaceous; branches and racemes upright, shorter than the leaf.

6. PATENS. OPEN.

Leaves ovate-lanceolate, flat, membranaceous; racemes upright, diffused, longer than the leaves.

7. PENDULA. HANGING.

*Foliis obverse ovatis subtus cinereis, fructibus oblongis sparsis, calicibus deciduis.* Browne, p. 214.

Leaves oblong, veined, membranaceous, perennial; racemes loose; fruits pendulous; calyxes deciduous.

Browne calls this *the smaller laurel with oblong berries*; and says he found this tree in the road between Mount Diablo and the thickets in St. Ann's; it divided into a great number of branches toward the top, was about twelve feet in height, and four inches in diameter near the root. The berries of this species are oblong and even, of an elliptic form, and seldom under an inch or better in length; they are of a black colour, very succulent, and contain each a single bilobed kernel, without any partial covering.

8. FLORIBUNDO.

Leaves ovate-lanceolate, flat, membranaceous; flowers raceme-panicled, loose, terminating.

All the above species are from Swartz Prodrumus, p. 65.

See AVOCADO PEAR—BENJAMIN—CAMPHIRE—CINNAMON—COGWOOD—SASSAFRAS—SWEETWOOD.

BEAD, HOOP, OR LILAC, TREE.

MELIA.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Trihilata.*

This is derived from a Greek word, signifying wood fit for spears.

GEN. CHAR.—Calyx one leafed, five-toothed; the corolla has five linear petals; stamens small filaments, with oblong anthers; the pistil has a conical germen, style cylindric, the length of the nectary; stigma capitate, with five converging valves; the pericarpium is a globular drupe, with a roundish five-grooved five-celled kernel.

1. AZEDARACH.

## 1. AZEDARACH.

Leaves bipinnate, leaflets flat, shining, with ferruginous dots underneath.

This is a native of Syria, and grows to a considerable tree, the root is brachiated; the bark rough and scabrous, the stem grows two feet thick, and thirty or forty feet high, very ramose and spreading. The leaves are large and pinnated, with an odd one at the end; the leaflets notched and indented at their edges, deep green above and paler underneath. The flowers come out from the side of the branches in long loose bunches; they are small, of a very sweet smell and of a blueish or purplish colour.—Fruit oblong, the size of a small cherry, green at first, but, when ripe, changing to pale yellow. Nut four or five celled, with one oblong seed in each cell. The pulp surrounding the nut is poisonous, and mixed with grease it is said will kill dogs. The nuts are bored and strung for beads. A decoction of the inner bark of the root of this tree is said to be used in the East Indies to expel the toenia or tape worm, and as a substitute for the Peruvian bark. Worms of every species are destroyed by this medicine. The following account of it, extracted from Dr. Dancer's Medical Assistant, first edition, is by Mr. Hylton, who is justly noticed as a gentleman of great philanthropy and most diligent enquiry: "The root has a thin reddish bark, or outer skin, which is deleterious and must be scraped off from the second, or inner thick white bark; put a handful of the shavings of this white bark in a quart of water; boil over a slow fire to a pint; when settled, pour off and sweeten. Dose, a wine-glass full, three mornings successively; after which a cathartic (castor oil) is to be administered." The same ingenious gentleman has very obligingly communicated to the compiler what he published in Richmond, in Virginia, in the year 1796, upon the virtues of this plant as an efficacious vermifuge, the particulars of which he learned from Mr. Judge Iredell, as follow:

"The *pride of China*" (the trivial name of the melia's in Carolina, of which from the size of the trees I saw in Edenton, of eighteen to twenty inches diameter, I judged it to be a native) "had been used by an old Indian woman, an *ab-origines* of Carolina, as a nostrum for the cure of children on most occasions, with great success, for many years, without any person being able to discover what it was. As worms are generally the cause of sickness in children, physicians in Edenton would always refer parents to this old Indian; and great discharges of worms, of every species, were the consequences of the medicine. When she found her dissolution approaching, she sent for some gentlemen of the town, and told them that the secret her fathers had given to her should not die with her, informed them of the tree, and the manner it was prepared and given; since which it is the universal medicine, which has saved thousands of children." Mr. Hylton adds, that he has given it in an hundred instances in this island and in America, and always with success, and says it is so esteemed in Carolina as to do away with their native pink-root altogether.

This tree grows readily from the seeds, and thrives well in Jamaica.

## 2. SEMPERVIRENS. EVERGREEN.

Leaves doubly pinnate; leaflets somewhat wrinkled, commonly seven.

This, formerly deemed only a variety, has been ascertained by Swartz to be a distinct species growing naturally in this island.

BEAN TREE—See CORAL TREE.

BEANS—See HORSE BEAN and KIDNEY BEAN.

BEARDED

## BEARDED GRASS.

## ARISTIDA.

CL. 3, OR. 2.—*Triandria digynia*. NAT. OR.—*Gramina*.This name is derived from *arista*, an awn or beard.

GEN. CHAR.—Calyx a one flowered bivalved glume; corolla, a bivalved glume, thicker than the calyx, outer valve linear, inner lanceolate, nectary two-leaved; filaments capillary, anthers oblong; germ turbinate, styles capillary, stigmas villose; no pericarp; the glume converging; seed one filiform, the length of the corolla, naked; there are two species, natives of Jamaica.

## 1. ADSOENSIONIS.

*Gramen avenaceum, panicula minus sparsa, cujus singula grana, tres aristas longissimas habent.* Sloane, v. 1, p. 16, t. 2, f. 5, 6.—  
*Spica laxa tenui aristis longissimis crinita.* Browne, p. 135.

Panicle branching, spikes scattered, corollas one-valved.

The culms in tufts, from one to two feet high. Leaves very slender and filiform.—Florets on short pedicels, narrow, brown. Seed very minute, acuminate. Browne says this plant is frequent in Jamaica, and seldom rises above ten or twelve inches from the ground, the stalks slender, panicles simple and bearded. Sloane found it in Barbadoes.

## 2. AMERICANA. AMERICAN.

*Minor, panicula e spicis simplicibus composita, glumis hexasetis.*—  
 Browne, p. 135.

Panicle simple, corollas two-valved, middle one longer, smooth.

The stalk rises half a foot high, jointed, and sub-divided. Leaves linear, stiff, even. Panicle with simple alternate spreading branches; the florets mostly pointing one way, alternate, approximated, pressed close. The anthers are red. This being less than the former, Browne calls it the smaller bearded grass.

BEEF WOOD.—See BULLY TREE.

## BEET.

## BETA.

CL. 5, OR. 2.—*Pentandria digynia*. NAT. OR.—*Polioraceæ*.

This takes its name from the form of its seed vessel, which, when it swells with seed, has the form of the letter so called in the Greek alphabet.

GEN. CHAR.—The calyx is a five-leave perianthium; there is no corolla; stamina are subulate filaments, with roundish anthers; the pistil has the germen below the receptacle; styles short and erect; stigmas acute; the pericarpium is within the bottom of the calyx; one-celled and deciduous: seeds single, kidney-form, involved in the calyx. This is a native of Europe, the most useful species has been introduced into this island.

## VULGARIS. COMMON.

Flowers heaped; leaflets of the calyx toothed at the base.

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This well known plant has large thick succulent leaves of a dark red or purple colour. The roots are large and deep red, and on these circumstances their goodness depends; for the larger they grow the more tender they will be, and the deeper their colour the more they are esteemed. It thrives pretty well in the mountains of Jamaica, but seldom grows luxuriantly. The roots of the beet are boiled, sliced and eaten cold as salads; and they make a good pickle. It is said however to be prejudicial to the stomach, and to afford little nourishment. The juice both of the roots and leaves is said to be a powerful errhine, occasioning a copious discharge of mucus without provoking sneezing, and thereby relieving old head aches. From the root of this plant sugar has been extracted, by boiling the roots, when taken out of the earth, slicing them when cold, and afterwards pressing out the juice; which is to be filtered, evaporated, and the sugar procured by chrysalization. The process at length may be found in the New Annual Register for 1800, and in the 18th volume of the Transactions of the Society for the Encouragement of Arts, &c. in London.

A large variety of this plant has also been introduced, known by the name of *mangel wurzel*. They are raised from the seeds, which should be planted in a good soil, and well manured from twelve to eighteen inches distant from each other.

BELLY-ACHE WEED—See CASSADA.

#### BENJAMIN TREE.

#### LAURUS.

CL. 9, OR. 1.—*Enneandria monogynia*. NAT. OR.—*Iloloraceæ*.

GEN. CHAR.—See Avocado Pear, p. 37.

#### BENZOIN.

Leaves nerveless, ovate, sharp at both ends, entire, annual.

This tree is a native of North America, and was introduced and first planted in the botanic garden, Bath. It grows from fifteen to twenty feet high, divided into a very branchy head, having small yellowish flowers, and may be propagated by seeds or layers. This tree was formerly mistaken for that which produces the gum benjamin, which is now known to be obtained from a species of *styrax*. The leaves are smooth and of a fine light green colour, but their under surface is venose and of a whitish cast. When bruised they emit a fine fragrance.

#### BENT-GRASS.

#### AGROSTIS.

CL. 3, OR. 2.—*Triandria digynia*. NAT. OR.—*Graminæ*.

This name is derived from a Greek word, signifying a field.

GEN. CHAR.—Calyx a one-flowered bivalved glume; corolla bivalve, acuminate, one larger than the other; filaments longer than the corolla, with forked anthers; the pistil has a roundish germen, reflex styles, and longitudinally hisped stigmas; the pericarp is the corolla, growing to the seed, which is roundish, and pointed at both ends. Two species are natives of this island:

1. PURPURASCENS.

## 1. PURPURASCENS. PURPLE.

*Gramen pratense panicula et foliis angustissimis, spicis brevibus mult-  
cis locustis minimis.* Sloane, v. 1, p. 115, t. 73, f. 1.

Panicle contracted, elongate, branches pressed close upright; florets unequal, acuminate.

The roots of this grass are many, small, white, and capillary, forming a large tuft, which send forth a great many leaves, five inches long, narrow, almost round, dry, and of a pale green colour. The stalks are round, solid, hard, smooth, a foot and a half high, of a clay colour, having small leaves to nine inches high; whence it is a very narrow panicle, being divided into many three-quarters of an inch long branches, sometimes black, and sometimes gray, having small oblong reddish seed in a gray or black naked husk, scarcely discernible to the naked eye. It grows in most savannas, and in abundance towards Black River bridge, beyond Two Mile Wood. It affords but small nourishment, yet cattle eat it in dry and scarce times, when they grow very big in their paunches, with the great quantity they eat, a little not being able to satisfy them.—Sloane.

## 2. VIRGINICA. VIRGINIAN.

*Minimum distiche foliatum, spica strictiori simplici erecta mutica.*—  
Browne, p. 137.

Panicle contracted; leaves rolled inwards, subulate, rigid, standing out.

Browne calls this *crab grass*, and says it is an elegant little plant, growing about Hunt's Bay; that the stalk is a little compressed, and seldom rises above four or five inches from the root.

## BERMUDAS CEDAR.

## JUNIPERUS.

CL. 22, OR. 13.—*Diaccia monodelphia.* NAT. OR.—*Coniferae.*

This takes its name from a plant of Pliny's.

GEN. CHAR.—Male calyx a conical ament, consisting of a common shaft, on which are disposed three opposite flowers in triple opposition, a tenth terminating the ament: each flower has for its base a broad, short, incumbent, scale, affixed to the column of the receptacle. There is no corolla. The stamens are three, four, or eight, filaments, in a terminal floscule, awl-shaped, united below into one body, in the lateral flowers scarce manifest; anthers three, distinct in the terminal flower, but fastened to the calycine scale, in the lateral ones. The female flowers have a three-parted perianth, very small, growing to the germ, permanent; corolla three petals, permanent, rigid, acute; the pistil has an inferior germ, three simple styles, with simple stigmas; the pericarp is a fleshy berry, roundish, marked on the lower part with three opposite obscure tubercles, from the calyx having grown there, and at the tip by three teeth, which before were the petals, umbilicated; seeds three ossicles, convex on one side, cornered on the other, oblong. One species is a native of Jamaica.

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BERMUDIANA.

## HORTUS JAMAICENSIS.

BERMUDIANA.

BERMUDIANA.      BERMUDIAN.

*Juniperus maxima cupressi folio minimo, cortice exteriori in tenues  
philyras spirales ductiti.* Sloane, v. 2, p. 2, t. 157, f. 3. *Foliolis  
inferioribus ternis, superioribus binis, decurrentibus, patulis.*—  
Browne, p. 362.

Lower leaves in threes, upper in pairs, decurrent, awl-shaped, spreading,  
acute.

Bermudas juniper, commonly called *Bermudas cedar*, is a native of Jamaica, and grows to a large size, affording very large boards of a reddish brown colour, close and firm texture, shining, very odoriferous, and strongly scented, extremely like, if not the same, as the Bermudas cedar, being towards its outside of a paler colour and looser texture. The bark is thin, and ready, in great pieces, to drop off, appearing somewhat contorted, of a reddish brown colour. The wood is much used in wainscoting rooms, and in cabinet work. Cockroaches and other vermin avoid its smell. It gives a bitter taste to victuals. It is said to be a good timber for ships against worms, though it is also observed that keels of ships of this wood have been found eaten through by sea worms. *Sloane*.—Browne says this tree grows very plentifully in the Blue Mountains, where it is frequently cut down for planks and other conveniences; and that it is a good timber wood, admired for its smell, lightness, and close even grain. It appears doubtful, however, whether Sloane's tree be the same as Browne's, and, indeed, whether either of them be exactly the same species as the *bermudiana*. Barham observes that it has leaves like the savine or fir, its wood is whiter than the common cedar, and smelling more like juniper berries. Its gum resists putrefaction and kills worms.

BERMUDIANA.

SISYRYNCHIUM.

CL. 16, OR. 1.—*Monadelphæa triandria.*      NAT. OR.—*Ensateæ.*

This name is derived from two Greek words, signifying swines snout, from the form of the flower.

GEN. CHAR.—The calyx is a common two-leaved spathe; corolla one-petalled, superior, six-parted; the stamina has the three filaments united, distinct at top; anthers bifid below; the pistil has an obovate inferior germen, three-sided style, stigmas thickish, awl-shaped, erect; the pericarp is an obovate capsule, inferior, three-celled, and three-valved; seeds several, globular. One species has been introduced, a native of North America:

PALMIFOLIUM.      PALM-LEAVED.

Scape ancipital; flowers in spikes; leaves ensiform, nerved and plated.

This plant has a stem two feet high, the leaves are about an inch broad, folding with five or six nerves. The glumes and flowers are numerous, in a terminating bundle. It thrives very well in most parts of this island.

BERNARDIA—*See ADELIA, p. 6.*

No English Name.

BESLERIA.

CL. 14, OR. 2.—*Didynamia Angiospermia*. NAT. OR.—*Personata*.

This was so named after Basil Besler, an apothecary at Nuremberg, editor of a sumptuous botanical work.

GEN. CHAR.—Calyx a one-leafed perianthium, five-parted, acuminate, erect, loose, with reflected tops; corolla monopetalous, ringent, tube the length of the calyx, border five-cleft; filaments within the mouth of the corolla, with oblong anthers hanging down on each side; the pistil has a globular germen, a subulate erect style, and a bifid obtuse stigma; the pericarpium is a sub-globular one-celled berry; seeds numerous, round, very small. One species is a native of Jamaica:

LUTEA. YELLOW.

*Foliis ovatis serratis oppositis, venis oblique arcuatis, floribus confertis ad alas.* Browne, p. 270.

Peduncles simple crowned, leaves lanceolate.

Browne calls this plant *eripha*, and says he met with it in Sixteen Mile Walk. It rises with a ligneous stem, six or seven feet high, dividing toward the top into many irregular branches, with spear-shaped serrate leaves, which have many transverse veins; the flowers come out at the wings of the leaves, in large clusters, each having a separate footstalk; they are small, tubulous, and of a pale yellow colour.

## BETEL NUT.

## ARECA.

CL. 25, OR. 1.—*Monoecia enneandria*. NAT. OR.—*Palme*.

GEN. CHAR.—The male calyx is a bivalved spathe; spadix branched; proper perianth three-leaved; the corolla has three acuminate, rigid petals; stamina are nine filaments, the three outer longer than the rest. The female flowers, in the same spathe, has the calyx a spathe common with the males: proper perianth three-leaved; the corolla three-petalled, acuminate, rigid; the pericarp a sub-ovate berry, fibrose surrounded at the base with the imbricate calyx: the seed ovate.

CATECHU.

Fronds pinnate; leaflets folded back, opposite end bitten.

This tree is a native of Providence and the East Indies, and was brought here in his Majesty's ship Providence in 1793. It has no branches, but its leaves are very beautiful; they form a round tuft at the top of the trunk, which is as straight as an arrow.—It grows to the height of twenty-five or thirty feet, marked with parallel rings, and is very ornamental. The fronds spring forth in pairs, decussated, encircling the top of the trunk at their base, and thus forming an oblong head larger than the trunk itself: they are few in number (six or seven), unarmed, reclining, six feet long, on a stipe four feet in length. These fronds break and fall off in succession; from their axils issue the sheaths which inclose the flowers and fruits. The shell which contains the fruit is smooth without, but rough and hairy within; in which it pretty much resembles the shell of the cocoa nut. Its size is equal to that of a pretty large walnut. Its kernel is as big as a nutmeg, to which it bears a great resemblance without, and has also the same

same whitish veins within, when cut in two. In the centre of the fruit, when it is soft, is contained a greyish and almost liquid substance, which grows hard in proportion as it ripens. The extract of this nut is supposed to be the *terra japonica* of the shops, at least that it is a very similar substance both in colour and taste; but, according to later observations, the genuine drug seems to be obtained from the *mimosa catichu*. The fruit, when ripe, is astringent, but not unpalatable, and the shell is yellowish. Of this fruit there is a prodigious consumption in the East Indies. It is chewed with the leaves of betel, mixing with it lime made of sea shells. In order to chew it, they cut the areca into four quarters, and wrap one quarter in a leaf of betel, over which they lay a little of the lime; afterwards they tie it, by twisting it round. This is called *pinang*, which is a Malayan word used all over the East Indies. The *pinang* provokes spitting very much, whether made with dried or fresh areca; the spittle is red, which colour the areca gives it. This mastication fastens the teeth and gums, and cools the mouth. When they have done chewing the *pinang* they spit out the gross substance, wash their mouth with fresh water, which takes off the red tinge it gives the teeth. It is pretended that areca strengthens the stomach when the juice is swallowed. Another property ascribed to it is its carrying off all that might be corrupt or unwholesome in the gum. When eaten by itself it impoverishes the blood, and causes the jaundice, but is not attended with these inconveniences when mixed with betel. The Samese call it *plou*. It is a considerable article in traffic, and the best comes from Ceylon; a red sort grows in Malabar, which is very proper for dying that colour.

## BICHY TREE.

New Genus.

CL. 23, OR. 1,—*Polygamia monoecia*.

This tree was originally imported from the coast of Guinea, and now grows in many parts of the south side of this island. The following characters were taken from a tree that perfected its fruit in the botanic garden, Liguanea:

GEN. CHAR.—The hermaphrodite flowers have no calyx. Corolla monopetalous five-parted, inferior, the segments ovate, acute, thick, somewhat hairy, striated, erect-patent: the nectarium concave, inclosing the germen, having a ten-dented margin: the stamina are ten short filaments or none; the anthers didymous, placed in a circle; the pistillum has a roundish germen, five furrowed, hairy; stigmas five, thick, reflex, somewhat contorted, leaning to the germen; the pericarpium is a large sub-ovate gibbous capsule, gently bowed, semilocular, bivalved; seeds many, imbricate, angled, each covered with a leathery bark: The male calyx and corolla as in the hermaphrodite, but one-third larger; the stamina the same; the pistillum has no germen, but the rudiments of five small stigmas, proceeding from the middle of the nectary.

## BICHY.

*Ceratonia affinis siliquosa laurifolia singulari, flore pentapetaloides purpureo striato, siliqua crassa brevi pulpa esculenta et purgante semina ambiente.* Sloane, v. 2, p. 60.

The racemes are short and compact.

This



This is a branchy but inelegant tree; the trunk is covered by a brownish bark; the leaves have alternate footstalks, are entire, oblong, veined, smooth, acuminate, margin undulated, dry, laurel-like, growing in a heap at the extremities of the branches; the footstalks have a swelling on both sides; the racemes are short and compact, generally proceeding from the larger branches. The corolla is pale yellow, the segments being each marked on the inside with three purplish grooves, the smell of which is very unpleasant. The negroes in Jamaica call it *bichy* or *cou*, where the seeds are used by themselves, or mixed with capsicum, for complaints in the belly.

Although this tree was but seven years old, raised from seed, which was brought from Guinea, yet it was twenty feet high, had a trunk as thick as the calf of one's leg, straight and round, covered with an almost smooth, reddish brown, bark, with greyish or white spots here and there, the boughs were on all hands, those lower being the longest; the twigs were on their further ends beset with very many leaves, set close by one another, and for the most part opposite. The footstalks were two inches long, having a swelling at the coming out of the twigs, and another near the leaf itself, which was six inches long, and two broad at the middle, where broadest, smooth, thin, having one middle rib, sending transverse ones to the sides, hard, and exactly like the cacao tree. The blossoms are several, coming out from the branches themselves, pentapetalous, though all the petals be joined at bottom, yellow and purple striped, with a yellow stilus, standing on the ends of green branched stalks, three inches long, to which follows a large, short, thick, and broad pod, within which lie several great beans or seeds, about which is an edible sweet pulp. The seed brought in a Guinea ship from that country was here planted by Mr. Goffe, in Colonel Bourden's plantation beyond Guanaboa. It is called *bichy* by the Coromantyn negroes, and is both eaten and used for physic in pains of the belly.—*Sloane*.

BIDENS—See WATER HEMP AGRIMONY.

BILBERRY—See JAMAICA BILBERRY.

#### BILIMEI FRUIT.

#### AVERRHOA.

CL. 10, OR. 4.—*Decandria pentagynia*. NAT. OR.—*Gruinales*.

This name was given in honour of Ebu Elvelid Ebu Rushad, commonly called Averrhoes, of Corduba in Spain, a very learned man, who died at the beginning of the 13th century.

GEN. CHAR.—Calyx a five-leaved perianthium; corolla five petalae, lanceolate petals; stamina setaceous, alternately the length of the corolla and shorter, with roundish anthers; the pistillum has an oblong germen, setaceous styles, and simple stigmas; the pericarpium is a turbinate pome, five-cornered, five-celled; seeds angular, separated by membranes. Only one species has been introduced, a native of India.

#### BILIMBI.

Trunk naked, fruit-bearing, pomes oblong, obtuse angled.

This plant grows only about eight feet high, with reclining branches; the leaves have

have ten pair of leaflets or more, they are small, ovate-lanceolate, quite entire, smooth, and grow on short petioles; the flowers are red purple, on oblong small racemes adhering to the trunk; calyx five-cleft. The fruit is an oblong pome, the thickness of a finger, smooth on the outside.

This plant was brought to Jamaica in his Majesty's ship Providence, in the year 1793, from the South Seas, and is valued as a preserve or pickle, though its acidity is very great. The fruit, like every other strong acid, will discharge iron-moulds from clothes, and also extracts ink or other stains from furniture. The method of using it for these purposes is to bruise the fruit and rub the pulp on the stain, and leave it there for some time. If exposed to the sun, its effect will be greater and more immediate.

The plant is easily propagated from the seed, which each berry contains in abundance, by sowing them in fine mould in a box, and regularly watering.

## BINDWEEDS:

## CONVOLVULUS:

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Campanaceae*.

This generic name is derived from a Latin word, signifying to roll about, because the stems of most species roll round or twine about other bodies.

GEN. CHAR.—Calyx is a five-parted perianth, converging, ovate, obtuse, very small, permanent; the corolla one-petaled, bell-shaped, spreading, large, plaited, obscurely five-lobed; the stamina have subulate filaments, shorter by half than the corolla, with ovate compressed anthers; the pistilum has a superior roundish germen; a filiform style the length of the stamens; the stigmas two, oblong, broadish; the pericarp is a capsule enwrapped by the calyx, roundish, two-celled, one, two, or three valved; the seeds are in pairs, roundish. Besides the plants of this genus referred to below, the following species, which have no English names, are natives of this island; see also the next article for the genus *evolvulus*, nearly allied to this:

## 1. CAROLINUS. CAROLINIAN.

*Polyanthos subhirsutus, foliis cordato ovatis quandoque lobatis, floribus, fasciculatis alaribus, calicibus longioribus hirsutis.* Browne, p. 152.

Leaves cordate, entire, and three-lobed, villous; calyxes even; capsules hirsute; peduncles one or two flowered.

Browne calls this the *smaller climbing convolvulus*, with long hairy cups. The stems are slender and reddish towards the roots. Leaves some entire and cordate, others like ivy leaves. Corollas pale purple or blueish.

## 2. VERTICILLATUS. VERTICILLATE.

*Minor scandens, floribus plurimis alaribus, calicibus glabris, capsulis quadrispermis, foliis oblongo cordatis.* Browne, p. 153.

Leaves cordate-oblong, naked; peduncles umbellate; bifid, many flowered.

This is called by Browne, the *smaller climbing convolvulus* with smooth cups; the corollas

corolla is bell-shaped, as in most flowers of this genus, blueish and small; the leaves are cordate or ovate, with the edge somewhat repand and roughish, the peduncles shorter than the leaf; umbellate, but the lateral pedicels are often subdivided.

3. UMBELLATUS. UMBELLED.

*Convolvulus polyanthos, folio subrotundo, flore luteo.* Sloane, v. 1, p. 154. *Foliis cordato-acuminatis, floribus umbellatis luteis, sustentaculis longis alaribus.* Browne, p. 154.

Leaves cordate, peduncles umbellate.

Stem herbaceous, twining, filiform, stiff, subdivided, pubescent, round. Leaves about two inches long, and as broad at the base, deeply cordate, lanceolate, angles of the base rounded, edge sub-repand, entire, sub-tomentose, dark green, hoary beneath; petioles three inches long, thickish, round. Flowers many, terminating on peduncles three inches long or more; partial peduncles three-quarters of an inch in length, three flowered, each flower on a pedicel much longer than the partial peduncles. Corollas yellow, the border plaited, obtusely pentangular. Two leaflets of the calyx a little shorter than the rest. Anthers whitish, oblong; germ oblong; style simple; stigmas two globular; capsule two-celled, with one seed in each cell, black, angular-roundish, velvet-villose.—Sw.

This plant is common about the Ferry, growing among the bushes; it bears beautiful yellow flowers, and the stalks are always margined on one side, but the capsules are generally small and oblong, and the figure of the leaves very various.—Browne.

4. QUINQUEFOLIUS. FIVE-LEAVED.

*Levis minor pentaphylla, calicibus hispidis, floribus quasi umbellatis.*—Browne's Ipomea 5, p. 155.

Leaves digitate, smooth, toothed; peduncles even.

Stem herbaceous, twining, filiform, round, hirsute. Leaves subpedate, in fives, digitate, the two inner divisions smaller, lanceolate, acute, serrate, nerved, veined, smooth on both sides; petioles round, recurved, pubescent, short; peduncles axillary, solitary, twice as long as the leaves, three flowered, erect, pubescent; pedicels one-flowered; calycine leaflets oblong, permanent, smooth, pale, the three inner ones larger; corolla bell-shaped, white, tube narrower at the base, swelling in the middle; border five-cornered, plaited, spreading; capsule roundish, two-celled, two-seeded.—Sw.

This is Browne's ipomea five, who calls it the *smooth leaved tiger's foot*, and says it is frequent in the lowlands of Jamaica, and generally found creeping upon the ground, or spreading over the lower bushes.

5. REPENS. CREEPING.

*Convolvulus maritimus major nostras rotundifolius.* Sloane, v. 1, p. 156.

Leaves sagittate, obtuse behind; stem creeping; peduncles one or two flowered.

Stem creeping, jointed, rooting, angular, compressed, sub-divided; leaves terminating,

minating, crowded, oblong, sometimes bluntly sagittate, entire, emarginate, scarcely veined, very smooth, somewhat succulent, on longish petioles; peduncles from the axils of the terminating petioles, the length of the leaves, erect, one-flowered; flowers rather large, whitish. It is a native of the sandy coasts of Jamaica.—Sw.

Sloane says he could not see any difference between the European and this herb, which grew on Gun Cayos, a small island off Port Royal. It is very purging, especially of watery and hydropic humours, and either given in powder, or boiled in broths, but very strong, and not fit for weak persons.—Sloane.

#### 6. HEDERACEUS. IVY-LIKE.

*Convolvulus folio hederaceo, anguloso, lanuginoso flore magno, caruleo, patulo.* Sloane, v. 1, p. 155.

Leaves triangular, acute; flowers many, sessile, spreading; calyxes acute, many cleft; stem twining.

The stalk of this is round, hairy, and pretty large, having leaves standing at about two inches intervals, on inch long hoary footstalks. They are shaped like those of ivy, having three angles or points, whitish, hoary, woolly, soft, an inch and a half long, and an inch broad at the base where broadest. From the axæ of the leaves come the flowers, being several on the same footstalk; they are large, blue, monopetalous, and extremely pleasing to the eye.

#### 7. TOMENTOSUS. DOWNY.

*Convolvulus folio lanato, in tres lacinias diviso, flore oblongo, purpureo.* Sloane, v. 1, p. 154, t. 98, f. 2. *Scandens, foliis trilobis quandoque cordatis septinerviis, pedunculis minus ramosis alaribus.* Browne, p. 152.

Leaves three-lobed, tomentose; stem lanuginose.

This, by its round, whitish, woolly stem, turns itself round the trunks of trees, rising twenty feet high, and putting forth leaves at every inches distance, standing on three-quarters of an inch long footstalks. They are something like the elder leaves of ivy, being divided into three laciniae, an inch and a half long from the centre of the footstalk to the point opposite to it, and as much or more from one section at base to the other; they are of a very white green colour, soft, and covered over with a short wool. The flowers come out *ex alis foliorum*, standing on quarter of an inch long footstalks in a pentaphyllous green calyx, are monopetalous, an inch and a half long in the tubulus of the flower, which opens itself bell-fashion, of a fine purple colour, with some yellow stamina in the middle, and five paler streaks. After these follows a brown membranaceous capsule, with four round protuberances, under a thin membrane, containing three satined seeds.—Sloane.

Of the above genus there are one hundred and ten species known. All the foregoing are indigenous to this island; the following exotic species have been introduced, and are in the Hortus Eastensis:—*Scammonia, purpureus major and minor, tricolor, dissectus, canariensis, speciosus, and strigosus.*

See CHRISTMAS GAMBOL—JALAP—INDIAN CREEPER—PURGING SEA BINDWEED—SCAMMONY—SWEET POTATOE—Also the following article.

BINDWEEDS.

## BINDWEEDS.

## EVOLVULUS.

CL. 5, OR. 4.—*Pentandria tetragynia*. NAT. OR.—*Campanaceæ*.This name is derived from *evolvere*, to roll about.

GEN. CHAR.—Calyx a five-leaved perianthium; leaflets lanceolate, sharp, permanent; corolla one-petalled rotate, five-cleft; stamina, five capillary spreading filaments, almost the length of the corolla, with little oblong anthers; the pistillum has a somewhat globose germen, four capillary styles, diverging, length of the stamens, with simple stigmas; the pericarp is a somewhat globose four-celled four-valved capsule; the seeds are solitary, roundish, and cornered on one side. Four species are natives of Jamaica.

## 1. MUMMULARIUS. MONEY.

*Convolvulus minor repens, mummulariæ folio, flore cæruleo.* Sloane, v. 1, p. 157, t. 99, f. 2. *Herbaceus repens, foliis subrotundis, floribus quinque-crenatis singularibus alaribus.* Browne, p. 153.

Leaves roundish; stem creeping; flowers sub-sessile

From a small stringy fibrous root spring long trailing stalks, taking root here and there, where they touch the ground, and putting forth, alternately, at small unequal distances, leaves almost round, three-quarters of an inch long, and an inch broad, having a small notch at the end, and on petioles a quarter of an inch in length, and of a brown colour. Flowers axillary, on short peduncles, of a light blue colour; legume brown, containing two or three brown seeds. It grows very plentifully after rain in the town savannas.—*Sloane*.

Swartz says the corollas are white, though Sloane might have perceived a blueish tinge, which is frequently the case. Browne calls it the *small creeping convolvulus*, and observes that the flowers are deeply crenated. According to Swartz the styles are three or four, and the capsule three or four celled and valved.

## 2. LINIFOLIUS. LINEAR-LEAVED.

*Herbaceus erectus, foliis linearibus, pedunculis longis tenuissimis bibracteatis alaribus.* Browne, p. 152, t. 10, f. 2.

Leaves lanceolate villose, sessile; stem upright; peduncles three-flowered, long.

This little plant is sometimes found in the lowlands, and seldom rises above ten or fourteen inches from the root. The stalk is generally simple, or but very little divided, slender and upright; the leaves are narrow and few, and throw out so many long and delicate flower stalks from their alæ, each furnished with a very small exterior bi-phyllous cup about the middle. The styles are two and bifid; and the capsules divided into two or four cells, and contain many seeds. The whole plant has the appearance of a very fine species of the flax.

## 3. SERICEUS. SILKY.

*Erectus herbaceus subhirsutus, foliis linearibus, pedunculis brevibus simplicibus solitariis ad alas.* Browne, p. 153, t. 10, f. 3.

Leaves lanceolate, sessile, silky underneath, peduncles short, one-flowered.

N 2

According

According to Browne this is so extremely like the *linifolius*, that they are hardly to be distinguished without great attention. The flower stalks are very short, the cups single, and every flower furnished with four styles. It grows in the lowlands.

4. GANGETICUS. GANGETIC.

*Herbaceus repens minor, corolla quinquefida, stylo ad basem usque quadripartito, floribus singularibus ad alas.* Browne, p. 152.

Leaves cordate, obtuse, microonate, villose, petioled; stem diffuse, peduncles one-flowered.

This little plant, the *smaller creeping convolvulus*, is found on the side of the road that leads to the foot of the Long Mountain in Liguanea. It creeps and roots upon the ground, but seldom grows above two or three inches in length; the leaves are roundish, and the flowers tubular, but moderately open and divided at the margin; the style is divided in four parts to the very base, and the fruit is a capsule, and contains two or four seeds.

## BIRCH TREE.

## BURSERA.

CL. 23, OR. 2.—*Polygamia diœcia.* NAT. OR.—*Gummifera.*

This is so named in memory of Joachim Burser, a great collector of plants.

GEN. CHAR.—The hermaphrodite calyx is a one-leafed minute perianthium, three-parted; the parts ovate, acute; the corolla has three petals, ovate, acute, spreading, entire, deciduous; stamens are six filaments, subulate, erect, fixed round the base of the germ, with ovate erect anthers; the pistillum has an ovate germen; a short thick style, trifid at the tip, with very short and simple stigmas; the pericarpium is a fleshy obovate capsule, three-cornered, three-celled, three-valved; the seeds berried, solitary (commonly only one), compressed. There are obscure vestiges of two cells, but a single seed occupies the whole capsule. The calyx of the male flower, on a separate tree, is a five-toothed minute perianthium; corolla five-petals, lanceolate, acuminate, reflex, shrivelling; the stamens are five, eight, or ten, filaments placed round a slightly convex surface, scarcely shorter than the petals, subulate, with oblong two-celled anthers; the pistillum a rudiment, no germen, style trifid, caducous, or none. There is only one species a native of Jamaica.

## GUMMIFERA. GUM-BEARING.

*Terebinthus major, betulæ cortice, fructu triangulari.* Sloane, v. 2, p. 89, t. 199, f. 1, 2. *Foliis cordato ovatis pinnatis, cortice leviter rufescente floribus masculinis spicatis.* Browne, p. 345.

Ferruginous villous twigs; leaves pinnate; two or three pairs, with an odd one; racemes axillary.

This is a very lofty tree, with an upright, round, smooth trunk, covered with a livid, shining, bark, peeling off in round pieces, like the European birch; branches terminating, smooth, horizontal; twigs ferruginous and villose; leaves pinnate; petioles round, villose, petiolules compressed, channelled, villose beneath. Leaves, two or

or three pairs, besides the odd one; they are ovate with a short point; entire, veined, and smooth; racemes axillary and terminating, shorter than the petioles, upright, many flowered, pubescent; pedicels alternate, short, one-flowered; flowers small and white; capsule red, resembling a drupe; on the male trees the flowers are more copious, and crowded in the racemes, but are scarcely larger.—*Sw.*

This tree has a great many roots running superficially on the earth on every hand for some yards round, from the middle of which rises a trunk as thick as a hoghead or pipe, covered with a brown red smooth, membranaceous outward bark, falling off in round pieces like to that of the English birch, whence its name. It hath several crooked branches, mounting to thirty feet high, covered with a brown smooth bark, near the top of which come out several two or three inches long stalks, sustaining on half inch long footstalks, several flowers one above another, each made up of five thick yellowish short petala, with stamina in the middle, and after these follow three-sided or triangular berries; of a small peas-bigness, with a reddish brown coloured skin, very gummy, and smelling like terebinthine, under which lies a white, very hard, triangular stone, containing a kernel. The tree having stood naked sometime has first its flowers come out, and its leaves begin to bud a little while after, which are winged, smooth, of a very fresh green colour, standing round the ends of the branches at half an inch's distance; the middle rib is five inches long, hoary, and set at an inch and a half's distance from the beginning, with pairs of pinnae one against another, on an half inch footstalk, the pinnae are an inch and a half long, and half as broad near the round base, where broadest, and shining; there is a small odd one at the end, and usually four or eight pairs, which, with the odd one, make up the leaf. The gum the tree yields is thought to be very vulnerary and healing.—*Sloane.*

It is very common in Jamaica, although I do not take it to be the same with what grows in England; but it having the very same sort of bark, makes the English here call them birch-trees. They are much larger here than any I ever saw in England; besides, of these, after the bark is off, the wood is very white, light, and brittle; none of the twigs are so tough as to make rods or brooms of; and the gum that flows from the tree is very odoriferous, white like mastic, and hath an aromatic absorbent taste.—I have often given and advised this gum to be taken in the *lues venerea* with good success, after due purging. It is so well known, that it needs no particular description.—*Barham, p. 20.*

This tree is very common in all the sugar islands. The bark is very thick and exudes a clear and transparent resin, which hardens soon in the air, and looks much like the mastic of the shops; but it yields a considerable quantity of a more fluid substance, by incision; which has much the smell and appearance of turpentine, and may be used for the same purposes with success.—*Browne.*

This tree grows readily from pieces of the limbs, and posts made of them and put in the ground, very speedily vegetate and shoot out branches. Dr. Browne mistook the bark of the roots of this tree for the simarouba or the shops, which is procured from a species of quassia. The gum has been employed successfully as a transparent varnish; and it is soluble in spirits of wine. The decoction of the roots is binding and astringent.

gent. In the French islands this tree is called *gommier blanc*, and an infusion of the buds and young leaves is recommended there in disorders of the breast.

BIRD PEPPER—See GUINEA PEPPER.

## BIRDS FOOT.

## ORNITHOPUS.

CL. 17, OR. 4.—*Diadelphia decandria*.

NAT. OR.—*Papilionaceæ*.

This name is derived from a Greek word for birds foot, the legumes or pods growing several together, in the manner and shape of birds claws.

GEN. CHAR.—The calyx of the umbel is simple; the perianth one-leafed, five-toothed; corolla papilionaceous; the stamina have simple filaments and anthers; the pistillum a linear germen, bristle-shaped style, the stigma a terminating dot; the pericarpium an awl-shaped legume, round, bowed, jointed; seeds solitary, roundish. One species of this genus is a native of Jamaica.

TETRAPHYLLOUS. FOUR-LEAVED.

*Quadrifolium erectum flare luteo*. Sloane, v. 1, p. 186, t. 116, f. 3.

Leaves in fours, flowers solitary.

This rises to about a foot high, being erect, branched, and having twigs set thick with leaves alternatively, on petioles three-quarters of an inch long, there being constantly, as far as I could observe, four on the same footstalk; each of them are small, and have a small snip or defect on their further ends, where they are largest, being of a yellowish green colour and smooth, with a prominent mid-rib on the lower surface. The flowers are yellow, solitary from the upper axils.—*Sloane*.

BIRTHWORT—See CONTRAYERVA.

## BITTER WOOD.

## QUASSIA.

CL. 10, OR. 1.—*Decandria monogynia*.

NAT. OR.—*Gruinales*.

This was so named by Linneus, in memory of Quassi, a negro slave, who found and discovered to Rolander the wood of one of the species.

The class and order of the bitter wood do not appear to be well ascertained; they are surely not *decandria monogynia*. Mr. John Lindsay's characters are very correct, and as follow:

GEN. CHAR.—Male flower: calyx a small inferior perianthium, composed of four squamose leaves, oval, persistent; the corolla four-petals, obtuse, equal, sessile, sub-erect; the nectarium is four hairy, ovate, squammæ, inserted at the base of the filaments; the stamens are four, five, or six filiform, sub-erect, equal, longer than the corolla, and inserted into the receptacle; the anthers simple and erect. Hermaphrodite flower on a different tree: calyx and corolla as in the male, but the filaments scarcely longer than the corolla; the pistillum has a fleshy, roundish, elevated receptacle; germen sub-ovate, composed of two, three, rarely four,



four, parts, slightly cohering; style thickish, erect; stigmas two, three, or four simple declined; the pericarpium two, three, or four drupes, globose, scarcely joining, black, shining, and inserted into the receptacle: seeds solitary, globose, unilocular, covered by a fragile shell.

POLYGAMA. POLYGAMY.

The following is an account of the quassia polygama, or bitter wood of Jamaica, by Mr. John Lindsay, formerly surgeon in Westmorland; which was read before the Royal Society of Edinburgh, November 7, 1791:

"The *quassia polygama* has long been known in Jamaica, and in some other islands in the West Indies, not only as an excellent timber, but as an useful medicine in putrid fevers and fluxes. With us it is called bitter wood, and in the windward islands bitter ash. The bark has for some time been prescribed by practitioners here, and exported to England in considerable quantities, for the purposes of the brewers of ale and porter. On these accounts, a fuller description of this plant than has hitherto appeared will be acceptable to the botanist and the public at large. It is very common in the woodlands of Jamaica, is beautiful, tall, and stately, some of them being one hundred feet long, and ten feet in circumference eight feet above the ground. The trunk is straight, smooth, and tapering, sending off its branches towards the top. The outside bark is pretty smooth, of a light grey or ash colour, from various lichens. The bark of the roots is of a yellowish cast, somewhat like the *cortex simaruba*. The inner bark is tough, and composed of fine flaxy fibres. The wood is of a yellow colour, tough, but not very hard. It takes a good polish, and is useful in flooring. The leaves are sub-alternate; the small leaves are in pairs, from five to eight, standing opposite to each other on short footstalks, and ending with an odd one. They are of an oblong oval shape, and pointed; the ribs reddish, and the young leaves are covered with a fine brownish down. The flowers come out in bunches or clusters from the lower part of the last shoot before the leaves, and stand on round footstalks. The flowers are small, of a yellowish green colour, with a very small calyx. The male or barren tree has flowers nearly similar to the hermaphrodite, but in it there are only the rudiments of a style. The fruit is a smooth black drupe, round shaped, and of the size of a pea. There is but little pulp, and the nut covers a round kernel. These drupes are generally three, sometimes two, and often only one, attached sidewise to a roundish fleshy receptacle. It flowers in October and November, and its fruit is ripe in December and January. Except the pulp of the fruit, every other part of this tree has an intensely bitter taste. In taste and virtues it is nearly equal to the quassia of Surinam, and I am credibly informed is sold in London for the quassia amara; and it may be safely used in all cases where that drug has been thought proper; whether as an antiseptic, or in cases of weakness in the stomach and bowels. It may either be given alone, or joined with the jesuits bark. The happiest effects result from the use of this medicine in obstinate remitting fevers from marsh miasmata, in agues which had resisted the use of jesuits bark, and in dysenteries of long standing. It is in daily practice in dropsies from debility, either in simple infusions or tincture by itself, or joined with aromatics and chalybeats. Dr. Drummond, an eminent physician in Jamaica, prescribes it with great success in the above cases, as well as in amenorrhœa, chlorosis, dyspepsia, and in that species of pica called dirt-eating, so fatal to a number of negroes. The bark of the *quassia polygama*, but especially the wood, is intensely bitter. They may both be used in various forms. In certain cases of dropsy, aromatics and preparations are joined to-

to it, also in amenorrhœa and chlorosis; and in worm fevers, the cabbage bark, or other vegetable anthelmintics." The following are the doses as prescribed by Mr. Lindsay:

From fifteen grains to one drachm by itself (or with the jesuits bark) of the wood or bark.

From two drachms to half an ounce to one pound of the watery infusion, and the same quantities to one pound or one and a half pound in decoction. A wine glass full to be given every three, four, or six hours, according to circumstances.

Is so called from its excessive bitterness: I think it exceeds wormwood, gall, and aloes. I have seen a handful of the shavings but just dipped in water, as quick as thought taken out again, and the water left so bitter that nothing could exceed it. A trough was made of it to give water to hogs, and, to their owner's surprise, although the hogs were ever so dry, they would not touch the water. This property of the tree hath not been known very long in Jamaica; and it was discovered by an accident: It being a very free sort of wood to split, light, and white, the coopers had made casks of it, unknowing its bitterness, to put sugar in, which was sent to England. Soon after, the owner had advice that his sugar was so bitter it could not be sold: The gentleman thought it was a trick, or a banter; but, upon a strict enquiry, found the occasion of it. Of late, bedsteads and presses are made of it, to prevent bugs, cockroaches, or worms breeding, as they do in other woods, for none of these vermin will come near the wood; neither do the workmen care for working it, it bittering their mouths and throats. It kills worms in the body, helps the cholic or belly ache, and creates an appetite. The wood of this tree, at the first cutting, is very white, but turns yellow afterwards. Its bark is like the lance-wood, and its leaves like the English ash.—*Barham*, p. 21.

The following receipts have been recommended, the first as a diuretic, and the second as a tonic in dropsy:

Infusion of bitter wood one pint—Salt of wormwood half an ounce—Gin two ounces—Mix—A wine glass-full several times in the day.—Diuretic salt, six drachms, may be substituted in the place of salt of wormwood.

A small tea-cup full of bitter-wood infusion, two or three times in the day, with a tea-spoonful of chalybeate wine, or with three or four grains of the salt of steel; *vis.* green copperas.

The bitter wood has lately been employed as a substitute for hops in the brewing of malt liquor, and has been found to answer the purpose extremely well. The bitter is however not so agreeable as that of the hop, and the taste remains much longer on the palate, after drinking the liquor.

From the qualities of the tree, it may be presumed that a decoction of the leaves or bark, would make an excellent fomentation for sores. The wood is exceedingly light, and, on that account, generally saved for laths for roofing; but, as Barham says, the workmen are not fond of it; for, even after the wood has been laid for floors many years, whoever rubs or scrapes it, feels a great degree of bitterness in their mouth and throat. No insect will come near it.

There are two other kinds of bitter wood, noticed by Dr. Brown, for which see the next article.

See MOUNTAIN DAMSON.

BITTER

## BITTER WOOD.

## XYLOPIA.

CL. 13, OR. 7.—*Polyandria polygynia*.—NAT. OR.—*Coadunata*.

This genus was named by Dr. Browne xylopiorum, being the Greek word for the English name, but Linneus shortened it to xylopi.

GEN. CHAR.—Calyx a three-leaved perianthium; leaflets ovate, concave, sharpish, deciduous; corolla six-petalled, sessile, linear-lanceolate, coriaceous, the three outer larger and thicker; there are scarcely any stamina, but numerous oblong anthers, fastened to the receptacle at the base of the germs; the pistillum has from two to fifteen germens, very small, fastened to a three-cornered receptacle; no styles; stigma long and very slender: the pericarpium has from two to fifteen capsules, pedicelled, four-cornered, compressed, coriaceous, one or two-celled, two-valved; the seeds are solitary or two together, roundish, smooth, within a succulent hemispherical aril. There are only three species, two of which are natives of Jamaica:

## 1. MURICATA. MUREXED.

*Fruticosum; foliis ovato acuminatis, productis, alternis; capsulis punctatis; floribus confertis ad alas.* Browne, p. 250, t. 5, f. 2.

Leaves lanceolate, pointed, with stiff bristles underneath, bearded at the top; peduncles many flowered; fruit muricate.

Browne calls this the *smaller bitter wood*, and says this little tree was found at the foot of the mountains in Sixteen Mile Walk, where it grew to the height of fifteen or twenty feet, but adds he made no remark on its bark or wood.

## 2. GLABRA. SMOOTH.

*Foliis amplioribus, nitidis, ovatis; petiolis brevibus; fructibus glabris.* Browne, p. 251.

Leaves oblong-ovate, smooth; peduncles one-flowered, sub-geminate; fruits smooth.

Browne calls this the *larger bitter wood*, and says, "I met with this tree in the mountains, back of Bull Bay, where it grew to a very considerable size, and raised its branches to the height of fifty or sixty feet above the root. The wood, bark, and berries, have an agreeable bitter taste, not unlike that of orange seed; and would probably prove excellent medicines, if brought into use. The wild pigeons feed much upon the berries, and owe all that delicate bitterish flavour, so peculiar to them in the season, wholly to this part of their food. I have eat many of the berries just off the tree, and found them both agreeable to the palate and grateful to the stomach. The bark is also richly impregnated with the same juice, as well as the wood, and both yield a very agreeable bitter in the mouth, while fresh; but that delicacy diminishes greatly after they are dried. The wood is easily wrought, and esteemed as a good timber wood; but must be used where it may not be easily exposed to the weather. This tree ought to be cultivated, for it will probably be found very serviceable in time; it seeds at Mr. Anderson's mountain near the Mine."—*Browne*.

This tree has been confounded with the *quassia polygama* by Long, and in the Linnean index to Barham, from whom indeed all Long's observations upon it are taken; and

and who mentions it to have leaves like the ash. This clearly points Barham's plant out to be the *quassia polygama*, which has pinnated leaves like the ash, whereas the leaves of the *xylopia* are alternate and ovate-acuminate, those of the former oblong-oval.

## BLACKBERRY BRAMBLE.

## RUBUS.

CL. 12, OR. 5.—*Icosandria polygynia*. NAT. OR.—*Senticosæ*.

This name is derived from a Latin word for redness, on account of the redness of the twigs and juice of the fruit.

GEN. CHAR.—Calyx a one-leafed, five-cleft, perianthium; segments oblong, spreading, permanent; the corolla has five roundish spreading petals; the stamina are numerous filaments, with roundish anthers, inserted into the calyx; the pistil has numerous germs, with small styles and simple stigmas; the berry is compounded of reddish acini, collected into a convex head, concave below; each one-celled; the seeds solitary, oblong; the receptacle of the pericarp is conical. One species is a native of this island.

JAMAICENSIS. JAMAICA.

*Rubus foliis longioribus subtus molli lanugine obductis et incanis flore et fructu minoribus.* Sloane, v. 2, p. 109, t. 213, f. 1. *Aculeatus, foliis digitato-quinatis, serratis, subtus argenteis.* Browne, p. 242.

Leaves quinate or ternate, tomentose underneath; stem, petioles, and leaves, pubescent, with recurved prickles; panicles diffused.

This plant is very common in Jamaica, growing plentifully on most ruinant lands in the mountains. It differs only from the common bramble of Europe in having the leaves gash-serrate, with the ribs prickly; the panicles terminating, diffused; the flowers and berries smaller. The leaves are covered over with a whitish soft wool, and are whitest on the lower surface. The berries, when ripe, are of a black colour, and very agreeable to the palate. If picked when red, and before they ripen, they make an excellent tart, having at that period a very agreeable acid taste. The stalks are very prickly and trailing; climbing upon the small trees and bushes around them.

There is a larger and smaller variety.

Two other species of this genus have been introduced, but not much cultivated; the *idaus*, or raspberry; and the *sylvaticus*, or blackberry, both European plants.

## BLACK CHERRY.

## MYRTUS.

CL. 12, OR. 1.—*Icosandria monogynia*. NAT. OR.—*Hesperidæ*.

GEN. CHAR.—See Bayberry, p. 75.

CERASINA. CHERRY.

*Arbor baccifera, myrti folio latiore, fructu nigro cerasino dipyrreno.* Sloane, v. 2, p. 107.

Peduncles

Peduncles lateral and terminating, one-flowered; leaves oblong, shining, dotted underneath.

The whole of this tree is smooth. The young twigs have linear-lanceolate scales, at first imbricate, but afterwards remote and deciduous. Leaves petioled, an inch long, blunt, the upper surface somewhat veined and shining, with a groove along the middle, the under-veinless, pale, dotted, in clusters. Peduncles sometimes four from the same bud; usually axillary, opposite, and terminating, but often below the leaves, one-flowered, filiform, an inch and half long. Segments of the calyx oblong, blunt; petals oblong, blunt, small, white.—*Fahl.*

The branches of this tree are covered with a brown bark, with white spots on it here and there; the leaves set against one another exactly like those of the *myrtus latifolia*. The fruit is like *black cherries*, whence the name, having a very thin black skin, with a very small purple and sweetish pulp, including two white stones, flat on one side, spherical on the other, so that the two compressed sides being joined, they make one round sphere.—*Sloane.*

## BLACKEYED PEA.

## PHASEOLUS.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

This name is said to be derived from phaselus, a little ship or boat, from its similitude to the pod of the kidney bean.

GEN. CHAR.—Calyx a one-leafed, two-lipped, perianthium, upper lip emarginate; lower three-toothed; the corolla is papilionaceous; banner heart-shaped, wings ovate; keel narrow, rolled spirally contrary to the sun; stamina are diadelphous filaments, within the keel, spiral; anthers simple. the pistil has an oblong germen, compressed, villose; a filiform style, bent in spirally, pubescent above; stigma blunt, thickish, villose; the pericarpium a long legume, straight, coriaceous, blunt with a point; seeds kidney-form, oblong, compressed. Two species are natives of this island.

## 1. SPHEROSPERMUS. ROUNDSEEDED.

*Phaseolus erectus minor, semine spherico, albido, hilo nigro.* Sloane, v. 1, p. 184, t. 117, f. 1, 2, 3. *Erectus; siliquis gracilibus, teretibus, polyspermibus; seminibus subrotundis, hilo nigro notatis.* Browne, p. 292.

Stem upright; seeds globular, dyed at the hilum.

This species is called *blackeyed pea*. The stem about a foot high, branched, petioles three or four inches long, the leaves are three together, the odd leaflet is an inch and a half broad at the base, two inches and a half long, on a petiolule three-quarters of an inch longer than the lateral leaflets, which are smaller; they are all very soft and of a yellowish green colour, and have their ribs from the end of the footstalks. Peduncles axillary, strong, and nine inches in length; the corolla is white. Legumes three or four inches long, almost round and straight, clay-coloured; the seeds are very many, almost round, white, with a black eye, not so big as the smaller field pea. They are accounted the sweetest and best food of any of the kind.—*Sloane.*

## 2. LATHYROIDES. LATHYRUS-LIKE.

*Phaseolus erectus lathyroides*, flore amplo, coccineo. Sloane, v. 1, p. 183, t. 116, f. 1. *Minor erectis pratensis, foliis oblongis, vexilla minori, siliquis gracilibus.* Browne, p. 291.

Stem upright, leaflets lanceolate.

This has an oblong large white root, going a foot deep into the ground, from the top of which grow several trailing branches, round, smooth, and green; set pretty thick with leaves, three always together, leaf at the top of the footstalk longer; they are oblong, acuminate; the two lateral ones sub-sessile, entire, veined, smooth above, pubescent underneath. Petioles alternate, erect, stiff, channelled, angular, reddish: stipules at the base of the petioles, opposite, acuminate; others at the base of the leaves; peduncles long, fastigate, many flowered, round, pubescent. The flowers are in a sort of spike, alternate, mostly in pairs close together, blood-red; the banner of a paler red; wings deep red, twice as large as the banner; keel whitish: legume roundish, awl-shaped; seeds roundish, separated, brown. This plant grows in moist sandy grounds, and Browne says it is pretty common in the savannas about Spanish Town.

See HORSE BEANS AND KIDNEY BEANS.

BLACK MASTIC—See BASTARD BULLY TREE.

BLACK OLIVE—See OLIVE-BARK.

No English Name.

BLECHNUM.

CL. 24, OR. 1.—*Cryptogamia filices, or Ferns.*

GEN. CHAR.—Fructifications disposed in two lines, approaching to the rib of the frond and parallel. One species has been discovered in this island.

OCCIDENTALE. WESTERN.

*Filix minor, in pinnas tantum divisa, crebras, non crenatas, auriculatas, et lineis pulverulentis aversa parte notatas.* Sloane, v. 1, p. 87, t. 44, f. 2. *Simplex foliis amplioribus oblongis falcatis et impetiolatis.* Browne, p. 91.

Fronds pinnate; pinnas lanceolate, opposite, emarginate at the base.

Browne calls this the *undivided blechnum*, with large oblong leaves. It rises by a simple undivided stalk to the height of thirteen or eighteen inches; the leaves long and narrow. Sloane says the pinnas are many, with two small auricles at the base.

BLECHUM—See CHRISTMAS PRIDE.

BLESSED THISTLE.

CENTAUREA.

CL. 19, OR. 3.—*Syngenesia polygamia frugifera.* NAT. OR.—*Composita.*

GEN.

GEN. CHAR.—Calyx common imbricate; corolla compound, flosculous, difform; the receptacle bristly; the down simple; the corollulæ of the radius funnel form, longer irregular. This plant is a native of Europe, and was introduced here many years ago, as well as the *cyanus*, or *blue bottle*, another species.

1. BENEDICTA. BLESSED.

Calyxes double-spiny, woolly, involucred; leaves semi-decurrent, toothletted, spiny.

This plant obtained the appellation of *benedictus* from its being supposed to possess extraordinary medical virtues; though not much in repute in modern practice. It has been celebrated as an alexipharmic and a cure for the plague. The bruised leaves boiled in wine, and mixed with flour and hogslard, laid on warm, are said to cure cancers and inveterate ulcers. The leaves have a penetrating bitter taste and ungrateful flavour. Dr. Lewis informs us that he has experienced excellent effects from a light infusion of this plant in loss of appetite, where the stomach was injured by irregularities. A stronger infusion made in cold or warm water, if drank freely, and the patient kept warm, promotes perspiration. The seeds are also considerably bitter, and have sometimes been used with the same effect as the leaves. Browne mentions that it was cultivated with great success in the mountains of New Liguanea, where it seeded as well as in most parts of Europe: he adds that it makes a fine stomachic medicine, and may be used with success in all weaknesses of the viscera, and over-abundant discharges of bile. For medical purposes the plant should be gathered while in flower, dried in the shade, and kept in a very dry airy place, to prevent its rotting, which it is very apt to do.

2. CYANUS. BLUE.

Calyxes serrate; leaves linear, quite entire, the lowest toothed.

This is a common weed among corn in Europe, called *blue bottle* in England, and *blue bonnets* in Scotland. The expressed juice of the *neutral florets* makes a good ink; it also stains linen of a beautiful blue, but the colour is not permanent. Mr. Boyle says that the juice of the central florets, with the addition of a very small quantity of alum, makes a lasting transparent blue, not inferior to ultramarine.

BLOOD FLOWER—See BASTARD IPECACUANHA.

BLUE PEA FLOWER.

CLITORIA.

CL. 17, OR. 3.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

This is so named from the form and colour of the corolla.

GEN. CHAR.—Calyx a one-leaved, erect, tubular, five-toothed, permanent perianthium; corolla papilionaceous, and supine, or turned downside up; the standard is very large, overshadowing the other petals; wings oblong, keel shorter than them; stamina and anthers simple; the pistil has an oblong germen, ascending style, and obtuse stigma; the pericarp is a very long legume, linear, compressed, one-celled, two-valved, with the tip subulate; seeds many, reniform. Three species.

species are indigenous to this island, as follow ; the *ternatea*, a native of the East Indies, grows in East's garden, having been brought to this island some years ago.

1. BRASILIANA. BRASILIAN.

*Major scandens, foliis subrotundo ovatis, floribus geminatis.*—  
Browne, p. 298.

Leaves ternate ; calyxes solitary, bell-form.

This Browne calls the *larger climbing clitoria*, which rises with a twining herbaceous stalk five or six feet high, having at each joint one ternate leaf on a long petiole. The flowers come out singly from the axils on long peduncles, encompassed about the middle with two small oval leaves ; the flowers are very large, the standard broad, and of a fine blue colour. Browne says this species is very rare in Jamaica, he found it in St. Ann's, where it grew very luxuriantly.

2. VIRGINIANA. VIRGINIAN.

*Phaseolus sylvaticus flore patulo, dilute purpureo, siliqua tenui nigra, semine minore maculato.* Sloane, v. 1, p. 181. *Minor scandens, foliis sub-villosis oblongo-ovatis, floribus geminatis.* Browne, p. 298.

Leaves ternate ; calyxes geminate, bell-form.

This species is very common in all the hills and lower lands of Jamaica. The stem is herbaceous, filiform, subdivided, scandent, and twining, round, striated, pubescent. Leaflets oblong, acuminate, with a blunt tip, entire, nerved, smooth, sometimes pubescent, on short petiolules : peduncles longer than the petioles, erect, angular, striated, hirsute, bearing three or four flowers : perianthium double, outer two-leaved ; leaflets ovate-acute, concave, keeled, pubescent ; inner tubular, two-lipped, the two upper teeth shorter, approximating, the three lower longer, acute, the middle one three times as long as the others : corolla resupinate, standard blue, with oblique purple streaks, at the back part dusky, and tomentose ; seeds smooth, and of a gray colour.

3. GALACTIA.

*Phaseolus minor lactescens flore purpureo.* Sloane, v. 1, p. 182, t. 114, f. 4. *Foliis ovatis glabris pinnato ternatis, spicis elongatis terminalibus.* Browne, p. 298, t. 32, f. 2.

Leaves ternate ; raceme erect ; flowers pendulous.

This, by its round small woody stalks, turns itself round, and mounts about any tree or shrub it comes near, rising to six feet high. At every inch putting forth leaves, three always together, on half inch long footstalks. The leaf opposite the footstalk is the longest, an inch long, and three-quarters of an inch broad in the middle where broadest, being roundish or oval, of a dark green colour, smooth, hard, and nervous. The flowers come out from the axæ of the leaves, on very short footstalks, three-quarters of an inch long, hollow, papilionaceous, and purple. After these follow cylindrical legumes, two inches long, crooked and sharp at the end, containing several brown small peas. All parts of the plant are milky ; it grew in the Red Hills and other places plentifully.—*Sloane.*

Browne



Browne calls this the *galactia*, with smooth leaves and long reddish flowers. It grows chiefly in the lower hills, and is easily distinguished by its long reddish flowers, milky branches, and smooth leaves. It rises sometimes eight or nine feet.

## BOG RUSH.

## SCHOENUS.

CL. 3, OR. 1.—*Triandria monogynia*. NAT. OR.—*Calamariæ*.

This name is derived from a Greek word, signifying a rope, for which some of the species is adapted.

GEN. CHAR.—The calyx has chaffy glumes, one-valved, heaped; there is no corolla; the stamina are three capillary filaments, with oblong erect anthers; the pistillum has an ovate, three sided, obtuse germen; style bristle shaped, length of the corolla; stigma bifid or trifid, slender; there is no pericarp; the seed is single, roundish, among the glumes. Nine species are indigenous to this island.

## 1. STELLATUS. STARRY.

*Gramen cyperoides spica compacta alba, foliis ad spicam partim albis, partim viridibus.* Sloane, v. 1, p. 119, t. 78, f. 1.

Culm subtriquetrous, spikelets conglomerate, with a leafy involucre, coloured at the base.

This hath a perennial root, it grows about a foot high, or less. Culm single, upright, striated, smooth, sheathed with the leaves of the base, roundish, but bluntly three-cornered towards the top. Leaves almost the length of the culm, erect, linear, acuminate, entire, striated, smooth. Sheaths surrounding the culm, hirsute or ciliate at the neck; involucre manifold or three-fold; leaflets very long: ternately-alternate, spreading, linear-lanceolate, sessile, striated, smooth, towards the base white coloured. Spikes terminating, clustered, sessile, small oblong, acuminate, whitish; chaffs or glumes in bundles, imbricate ovate, acute, concave, scarcely keeled, entire, one-flowered; the filaments three, the length of the glumes, upright; germ roundish; style longer than the glumes, cloven to the middle; stigmas short, erect; seed roundish, flattened a little, large. It resembles the *kyllingias*, and is probably mixed with them by authors, especially with *kyllingia triceps*.—Sw. See *Kyllingia*.

From a fibrous and stringy root spring up several triangular blunt-edged stalks, of about a foot in length. The leaves are harsh to the touch. The spike is compact, made up of many white spikes, set close in a head, and has some long, harsh, grassy leaves close under it, which for the first part or half are white, and towards the ends green. The seed is small and yellowish. It grows in those places where water has in rainy times stood on the ground, as in the pasture beyond the Angel's Ford.—Sloane.

## 2. RESTIOIDES.

Culms at bottom, compressed ancipital, and very smooth; flowers panicled; sheath lanceolate at the top.

This is almost a fathom in height, the culm jointed, erect, striated, with swelling joints; the leaves sheathed at the base, long, wide, linear, quite entire, very finely striated.

striated longitudinally, rigid; sheaths ancipital, finely striated. Panicles bursting from ancipital-lanceolate covered sheaths, subdivided into dichotomous sub-fastigiate diffused branchlets, having sheathlets underneath at all the divisions, of a red ferruginous colour. Spikelets solitary, or in pairs, sessile, two-flowered, polygamous, on prickly serrate peduncles. Glumes four-valved, two-flowered; valves decussated, ovate, acute, concave, slightly keeled, sometimes serrate, brown; there are no filaments; the germ is three cornered, style oblong, trifid at top; stigmas cirrhose.—Serrate bristles are placed upon the pistil. One of the florets is small, interior, and two-valved; the valves equal and lanceolate; the filaments two or three, and minute; the pistil small. This is considered a singular species, and probably making a distinct genus, were the characters well ascertained.

### 3. CLADIUM.

*Culmo nodoso, floribus quasi umbellatis, umbellis gradatim assurgentibus.* Browne, p. 114.

Culm bluntly three-sided, leafy, even; leaves prickly in front, panicles diffused; spikelets one-flowered, sessile, two-stamened.

Culm eight or ten feet high, single, jointed, smooth, striated; leaves sheathing, very long, keeled, half an inch wide, cartilaginous-serrate along the back and edge, striated, smooth, rigid; sheaths closed in front, serrate: flowers in lateral panicles from the sheaths; peduncles solitary, short, compressed, sheathed; sheaths numerous, crowded, alternate, from which spring some partial peduncles, which are elongated, loose, diffused; towards the top next the sheathlet subdivided into many unequal umbelled pedicels, frequently terminating in an umbellet, with the ultimate pedicels three-flowered. Spikelets three or four, ovate, acuminate, small, ferruginous; glumes or scales oblong, acute, unequal. At the side of the inner glume, surrounding the germ, are capillary bristles the length of the glume; filaments very short; germ linear-oblong; style shorter than the glumes, trifid; stigmas reflexed, convolute, permanent; seed ovate, acute, shining brown. It grows in sea marshes.—Sw.

Browne calls this plant the *large florid cladium*.

### 4. GLOMERATUS. HEAPED.

Culm three-sided, leafy, flowers in bundles; leaves flat; peduncles lateral, in pairs.

### 5. EFFUSUS. OVERFLOWING.

Culm leafy, bluntly three-sided, even; leaves entirely prickly in front, panicles more erect; spikelets one-flowered, sessile, two-stamened.

Swartz gave this as a distinct species, but it resembles the *mariscus*, an European species, so nearly, that he hardly thought it could be made a distinct species.

### 6. CYPEROIDES. CYPERUS-LIKE.

Culm three-sided, leafy; umbel terminating; spikelets glomerate.

Two feet high. Culm striated, smooth; leaves sheathing, half a foot long, linear, keeled, striated, smooth, with the keel of the valves sub-serrate; spikes terminating, umbelled; peduncles, from the sheaths of the terminating leaves, several, unequal, three-sided; involucre none, but only the two alternate leaflets, from the sheaths of which the peduncles rise. Spikelets in little terminating balls (sometimes compound), very

very much crowded, sessile, acuminate, spreading, ferruginous; glume chaffy, heaped, unequal, sub-imbricate; the inner ones more tender, narrower, less, one-flowered; filaments three, very short; germ extremely small; style longer than the glumes, trifid at the top, permanent; stigmas capillary, cirrhose; at the base of the germ are two bristles the length of the glumes; seed inclosed within the glumes, obovate, mostly obcordate, bluntly three-cornered, ferruginous, smooth. It is not a cyperus, because the chaffs are not distich, and the seed is not three-sided.—Sw.

7. GRACILIS. SLENDER.

Culm three-sided, leafy, very long, filiform; spikes lateral, peduncled.

Height from three to six feet. Culm very long, simple, loose, striated; leaves linear, very long, sessile, keeled, striated, serrate; spikes axillary; peduncles solitary, elongated, filiform; spikelets in bundles, small, six to ten, unequal, round, and linear, sessile, ferruginous, smooth; glumes chaffy, many, unequal; the lowest small, the rest convex, acuminate, imbricate; the interior ones more tender, smaller, one flowered; filaments three, very short; germ roundish; style awl-shaped, scarcely longer than the glumes, trifid; stigmas capillary, reflexed; seed three-cornered, very small, ferruginous. It grows in the woods in the highest mountains.

8. SETACEUS. BRISTLED.

Culm three-sided, almost naked, leaves bristle-shaped; spikelets aggregate; flowers two-stamened.

The height about a foot. Culm simple, setaceous, weak; leaves mostly shorter than the culm, somewhat striated, erect; culms towards the upper part simply two-parted, or subdichotomous, into axillary, peduncled, aggregate; spikelets, three to six in number, awl-shaped and small; lower peduncles often solitary, an inch long; upper crowded, bundled, very short; lower glumes smaller, ovate, acute, keeled, terminated by a very short awn; upper glumes lanceolate, awnless, convolute at the top; filaments two, very short; style bifid; stigmas capillary. At the sides of the germ are two capillary bristles, the length of the glume; seeds roundish, compressed at the edge, acuminate, transversely wrinkled. This grows in dry pastures.

9. PUSILLUS. DWARF.

Culm three-sided, naked, filiform; spikelets terminating, sub-fascicled, sessile, with a leaflet beneath, equalling the spike.

Height about an inch. Roots capillary, simple; culms almost upright, capillary; leaves radical, equalling the culm, filiform, keeled at the base, sheathing, ciliate at the edge, striated, smooth; spikelets three or four, very small, one above another, ovate, acuminate; under the lowest spike is an awl-shaped leaflet, sheathed at the base; glumes chaffy, heaped, imbricate, separating the flowers, ovate, keeled, awnless, one-flowered; filaments three, the length of the chaffs; anthers linear; germ roundish; style filiform, three-sided at the base, trifid at top; stigmas capillary, reflexed; seed roundish, bluntly three-cornered, ragged, ferruginous, appearing as it were echinate, when examined by a microscope; without which the parts of fructification are not visible. It grows in the southern parts of Jamaica.

10. SURINAMENSIS. SURINAM.

Culm leafy, three-sided; peduncles corymbed, the lower ones alternate, distant, the upper ones crowded.

P

From

From one to four feet high, growing in tufts. Culms simple, sharply three-sided, rugged, leafy below; leaves sheathed, very long, equal to the culm or longer, flattish, slightly keeled, striated, linear, serrate-prickly along the keel and edge, stiffish; the upper ones shorter and distant; sheathes alternate, crowded, keeled, with a blunt dagger point in front; corymbs peduncled, lateral, compound, shorter than the leaves, before flowering crowded, nodding, afterwards divaricating; peduncles elongated, from the sheathes of the upper leaves, solitary, remote, loose; the upper ones crowded; spikelets cylindrical-subulate, very shortly pedicelled, patulous, ferruginous; bractes capillary, longer than the florets, at the base of the pedicels; lower glumes shorter, ovate, imbricate; upper a little longer, and between them a middle flower, male, and solitary, between the outer ones females, or an hermaphrodite; filaments three, very short; anthers linear; germ ovate, margined, blackish, surrounded at the base with from two to four jointed bristles; style long, undivided; stigma linear; seed roundish, black-rust-coloured. Most commonly many of the spikelets are males without any females.—Sw.

BOEHMERIA—See NETTLE TREE.

BOMBAST MAHOE—See DOWN TREE.

#### BONACE BARK.

*Genus Doubtful.*

CL. 4, OR. 1.—*Tetrandria monogynia?*

This is called *bonace bark tree* by Browne, who only describes the pericarp, not having seen the flower; the other characters which follow are from Mr. A. Robinson's manuscript:

GEN. CHAR.—Calyx a monophyllous bell-shaped perianth, cut lightly on the brim into four lanceolated equal parts; no corolla; germ ovate, in the base of the cup; style short and thick, with a peltated stigma; there appeared no stamens, but in some flowers there were four small globose nectareous glands; the pericarp was a dry drupe, ovate, of the size and figure of an olive, having a two lobed nut, covered with a proper membrane, full.

#### BONACE.

*Cortice fisso, foliis oblongis, racemis umbellulatis terminalibus.*—  
Browne, p. 372.

Browne says this plant is common near Montego Bay, where it grows to a moderate size. The bark makes very good ropes; it is fine, and spreads in some shape like that of the *lagetto* bark, though not so free or regular. The seeds have a sharp biting taste. Mr. Robinson found the fruit ripe in September in New Liguanea mountains, not far from Yallah's River. The twigs were brown, slender, and dichotomous; the leaves alternate and sessile, with entire reflected margins, of an olive green colour, somewhat rough and shining above, but dull and blueish green beneath, and marked with alternate veins. From the bosom of the upper leaf grew a short common peduncle, protruding from its summit three or four proper peduncles, hardly half a line in length, each supporting a small olive-like fruit, scarcely exceeding half an inch in length, containing one nut, covered with a fibrous integument. Having tasted the fruit he found

found his mouth affected with a burning acrimony, such as is caused by the bark of wild cinnamon, or of wild rosemary. At Old Woman Savanna, in Clarendon, there is a larger species of this known by the name of *burn-nose bark*, so called from its supposed effects on those who smell it closely. A tree was also observed in Lime Savanna.

BOURRERIA—See CURRANT TREE.

## BORRAGE.

## BORRAGO.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Asperifolia*.

This name is derived from *cor* and *ago*, on account of its supposed cordial qualities.

GEN. CHAR.—Calyx five-parted, permanent; corolla monopetalous, rotate, border five-parted, throat crowned with five emarginate obtuse prominences; the stamens have subulate converging filaments, oblong anthers, fixed on the inside of the filaments; the pistil has four germs, filiform style, simple stigma; there is no pericarpium; calyx larger, inflated; the seeds four, roundish, wrinkled, keeled outwards at the top, globular at the base, inserted longitudinally into an hollowed receptacle.

OFFICINALIS. OFFICINAL.

All the leaves alternate; calyxes spreading.

The whole of this plant is rough, with white prickly hairs. The common colour of the corolla is blue, but varies to flesh coloured and white. It came originally from Aleppo and thrives well in Jamaica. The whole herb is succulent and very mucilaginous, having a peculiar faint smell when bruised. The young tender leaves may be used in salads, or as a pot-herb. By the experiments of M. Margraaf, in 1747, it appears that the juice affords a true nitre.

This plant grows and thrives very luxuriantly in the mountains of New Liguanea; it has been always esteemed as an excellent cooling cordial in all febrile cases; and may be justly regarded as a proper simple to be used in such over-heated states of the blood: it is generally administered in decoctions and infusions, with other cooling medicines. A distilled water of both the leaves and flowers of this plant has been formerly kept in the shops, as well as a conserve of the blossoms; but these are very little regarded in modern practice, especially in England, where most of the diseases proceed rather from inaction, and the viscosity of the juices.—*Browne, p. 150.*

## BOTTLE-COD ROOT.

## CARPARIS.

CL. 12, OR. 1.—*Polyandria monogynia*. NAT. OR.—*Putamineæ*.

This name is derived from a Greek word, signifying to cure melancholy.

GEN. CHAR.—Calyx a four-leaved, coriaceous, perianth; leaflets ovate, concave, gibbous; the corolla has four petals, obtuse, spreading, very large; the stamens long, numerous, siniform, patulous, filaments, with oblong, versatile, inclined anthers.

anthers; the pistil has a pedicelled germ, no style; stigma obtuse, sessile; the pericarp is a corticose berry, one-celled, pedicelled; seeds numerous, reniform, nestling. Eight species are indigenous to this island, as follow:

## 1. CYNOPHALLOPHORA.

*Fruticosa, foliis oblongis obtusis.* Browne, p. 246, t. 27, f. 1.

Peduncles many flowered, terminal; leaves oval, obtuse, perennial; glands axillary.

This varies considerably in its habit or general appearance, according to the soil in which it is found. In sunny hedges it is weak, thin, and as it were supported by the neighbouring vegetables; but in fields and towards the shores, it is a kind of shrub or little tree of twelve feet high, and of a pretty appearance. The leaves are alternate, petiolated, smooth on both sides, thickish, somewhat stiff, and about three inches long; they are also either ovate, ob-ovate, or even lance-ovate, but more frequently oblong. In the axilla of the leaves there is a roundish solitary gland, which is scarce ever missing. The flowers are beautiful, very patulous, and extremely fragrant, of a white or greenish white; the stamens often four inches long; the silique about a foot long, of various degrees of thickness, outwardly green, or greenish purple, with a red suture, and, when ripe, split longitudinally, each part rolling back to the very foot-stalk, and successively letting fall the seeds, which are coated with a white bark externally, and greenish internally, and are surrounded by a scarlet flesh or pulp. It is very common in the lower hills of Jamaica. Browne calls it the *shrubby bregynia*.

This is called *bottle-cod root*, it is found in copses, and is disposed to run in bushes. It is remarkable for having large white flowers, whose stamina are of an extraordinary length. The pods are a foot long and unequal. When ripe they open gradually, and shew the seeds in a sort of crimson bedding. The root is large, yellow, fleshy, and tastes strongly like horse-raddish. Dr. Canvane recommends it as a specific in dropsy. He orders a decoction of it; but an infusion is preferable, because boiling dissipates its virtues. The other species of this genus, which grow in Jamaica, have the same sensible qualities as those of the mustard tribe.—Wright.

## 2. BADUCEA.

*Fruticosa, foliis singularibus, oblongo-ovatis, superne nitidis, siliquis minoribus teretibus aequalibus.* Browne, p. 246, t. 27, f. 2.

Peduncles one-flowered; leaves ovate-oblong, determinately crowded, naked.

This Browne calls the *mustard shrub with a willow-leaf*, and says it is common in all the savannas and lowlands about Kingston. It grows generally to the height of nine or ten feet, and throws out a number of slender sub-erect branches, adorned with oblong leaves, which appear dirty and opaque as if they were dusted underneath. All the parts of the plant have a strong pungent smell and taste, like most of the mustard tribe.—Browne.

## 3. FERRUGINEA. IRON.

*Acaciis affinis arbor siliquosa folio subrotundo singulari, flore stamineo albido, siliqua tereti ventriosa, cujus interior tunica est mucosa et eleganter miniata.* Sloane, v. 2, p. 59. *Fruticosa; foliis singularibus*

*laribus oblongis utrinque acutis, subtus quasi villosis; floribus octandris, racemis comosis alaribus.* Browne, p. 247, t. 28, f. 1.

Peduncles umbelled; leaves permanent, lanceolate, tomentose beneath; flowers eight stamened.

This is a small tree or shrub, with striated rufous or ferruginous coloured branches; leaves ovate-lanceolate, quite entire, lanuginous—ash-coloured beneath, smooth on the upper surface; petioles ferruginous, short; flowers in a sort of corymb, terminating, on bifid or trifid peduncles; the corollas white, and fragrant. This plant is common in all the lowlands of Jamaica, and has obtained the name of *mustard shrub*, from its being strongly impregnated with an acrid volatile salt.

This tree riseth to about twenty feet high, having a trunk as thick as ones thigh, the bark is of a dark grey colour, the branches bow downwards and are crooked, having here and there knobs on them; the leaves come out alternately, at about half an inch distance, standing on a brown half inch long footstalk, they are two inches long, and one and a quarter broad, having one middle and several transverse ribs. The flowers come out on the ends of the twigs, and consist of a great many very long white stamina, inclosed in a green capsule, to which follow, three inches long, green, smooth, venicose, pods, in which is contained four or five peas, being green and soft, inclosed in a white pulp; the inward mucilaginous membrane of the pod is of a scarlet colour. The pod opens of itself, and its contents are much coveted by ants; the pod hangs to the tree by a two-inches long footstalk, and is small at the further end.—*Sloane.*

#### 4. TORULOSA. TWISTED.

*Arborescens, foliis ovatis utrinque acuminatis, siliqua torosa longissima.* Browne, p. 246.

Peduncles sub-biflorus, round, terminating; leaves lanceolate-ovate, dotted with white underneath; pods round, linear, torulose.

Browne calls this the *larger breynia*, which grows to be a shrubby tree. He says it is rather a rare plant, and he only saw one, which grew near Port Antonio.

#### 5. LONGIFOLIA. LONG-LEAVED.

Leaves linear-lanceolate, dotted with meal underneath.

#### 6. SILIQUOSA. PODDED.

Peduncles many flowered, compressed; leaves permanent, lanceolate-oblong, acuminate, dotted beneath.

#### 7. JAMAICENSIS. JAMAICA.

Peduncles many flowered; leaves oblong, obtuse, emarginate, downy underneath; corollas campanulate.

#### 8. BREYNIA.

Peduncles racemed; leaves permanent, oblong; calyxes and peduncles tomentose; flowers eight stamened.

This is a small tree with an upright smooth trunk and flexuose branches, scarred with the fallen leaves; twigs angular and pubescent; leaves alternate, scattered, acuminate,

minate, nerveless, smooth on the upper surface and shining, beneath hoary, ferruginous, or ash-coloured, covered with very minute ferruginous dots; petioles angular, hoary, ferruginous; peduncles terminating, somewhat branched, forming a sort of umbel, compressed, marked with lines, ferruginous; flowers rather large; leaflets of the calyx reflex, convex, white on the inside, ferruginous beneath, and somewhat rugged; petals twice as large as the calyx, entire, white tinged with purple, spotted with rust colour on the outside, deciduous; nectariferous glands four, small, ovate, acute, compressed, permanent; filaments long, meeting at the base round the germ, with a pale red pile on them; anthers almost erect, acuminate, curved inwards, yellow; germ elongated, minute, on a very short pedicle; style the length of the stamens; stigma thickened, obtuse, ferruginous; the fruit is a long cylindric, subtorulose, two-valved, legume; containing several kidney-shaped seeds. It is a native of dry coppices near the sea in Jamaica, and most other islands in the West Indies.—Sw.

Besides the above native species of *capparis*, the *spinosa*, or *caper shrub*, was introduced by Mr. East, in 1774.

## BRAZILETTO.

## CÆSALPINIA.

CL. 10, OR. 1.—*Decandria monogynia*. NAT. OR.—*Lomentaceæ*.

GEN. CHAR.—See Barbadoes Pride, p. 51. The two following species are natives of Jamaica:

## 1. BRAZILIENSIS. BRAZIL.

*Pseudo santalum croccum*. Sloane, v. 2, p. 184, t. 182, f. 3, 4.—  
*Arborea, inermis; foliis minoribus paribus bipinnatis, ligno ker-*  
*mesino*. Browne, p. 227.

Unarmed, leaflets ovate-oblong; midrib pubescent; calyxes tomentose; stamens shorter than the corolla.

This is the tree which affords the *braziletto* wood, so much used in dying. The branches are slender, and full of small prickles; the leaves branch out into many divisions, the leaflets oval, indented at top and opposite, very like those of the logwood; the peduncles from the side of the branches terminated by a loose pyramidal spike of white flowers, beautifully variegated with red. The corolla has five leaves, the upper one has its unguis tubuloid and its bractea patent, the whole resembling a little trumpet. The pods inclode several small round seeds. Mr. Hellot gives the following method of imparting durability to the colour of *braziletto* dye: it consists only in letting decoctions of the wood stand for some time in wooden casks, till it grows stale and rpy; pieces of woollen cloth dyed in this liquor acquired a colour so durable, that they were not in the least altered by exposure to the air, during four months in the winter season. Mr. A. Robinson observes, that the seeds of this tree are often destroyed by insects, and the pods a long while before they drop.

This tree grows in every part of Jamaica where the soil is dry and rocky; it is an excellent timber wood, but seldom exceeds eight or ten inches in diameter, in the most perfect state. The wood is elastic, tough, and durable, and bears a fine polish; it is



of a beautiful orange colour, full of resin, and yields a fine full tincture by infusion ; but is seldom cut for the dyers use in Jamaica.—*Browne*.

The true brasil is called *Pernambuca*, being the place from whence they come in Brasil ; the Brasilians calling it *ibirapitanga*. It is a thick large tree, with a reddish and thorny bark ; the leaves small and blunt, of a fine shining green ; its flowers little, sweet, and of a beautiful red ; the pods flat and prickly, in which are two flat seeds, like the gourd seed. This wood is used among the dyers, and the stationers make red ink of it ; viz. Take raspings of the wood, infuse them in vinegar or some strong lixivium, and, with gum arabic and alum, put them in a glazed pot, and gently infuse them for some hours. Some dye the roots of *althea* with it, to clean the teeth withal. I have met with two sorts growing in Jamaica ; one every way as red as brasil. It hath a red gum, with a restringent taste ; its wood is very tough and strong ; the wheelwrights in Jamaica say they make the best spokes for wheels. A decoction of the wood strengthens the stomach, abates feverish heats, and takes away inflammations and defluxions in the eyes.—*Barham*, p. 23.

#### 2. BIJUGA. DOUBLE.

*Senna spuria arborea* sp. *nosa*, foliis alatis ramosis seu decompositis, flore lutea, siliquis brevibus sulcatis nigris, sahina odore. Sloane, v. 2, p. 50, t. 181, f. 2, 3. *Sp. nosa*, foliis minoribus obverse cordatis, bipinnatis ; racemis terminalibus. *Browne*, p. 227.

Prickly, leaves doubly pinnate, with two pairs of ob-cordate leaflets, they and the calyxes smooth ; stamens equalling the corolla.

Sloane calls this *Indian savin tree*. It rises fifteen feet in height, having a trunk somewhat crooked, about the thickness of ones thigh, covered with a whitish grey, almost smooth bark. The tree has several crooked and prickly branches, with leaves coming out at unequal distances, being decomposite and winged ; the middle rib is four or five inches long, divided into as many pairs of petioles, on each of which are two pairs of smooth shining leaflets, half an inch in diameter, very green, smooth, and almost round, having a defect or indentation at one end, a little pointed at the other and shining. Flowers in several spikes three inches long at the tops of the branches, of a deep yellow colour. The legumes are of a blackish colour, smooth and flat, having some sulci on them, and containing large brown, smooth, round, peas. All parts of this tree, if bruised, have a very balsamic strong scent. It grows by Passage Fort and the road to it very plentifully.—*Sloane*.

This prickly shrub is common about the Ferry, and the lower lands of Liguanea, but it seldom rises above eight or ten feet in height ; the wood is of a brown colour, the foliage of a dark gloomy green, and the flowers of a fine yellow, which are succeeded by pods of a thickish oblong form. The lower segment of the cup is not fringed, nor any of the flower leaves variegated in this species.—*Browne*.

See BARBADOES PRIDE.

#### BREAD FRUIT.

#### ARTOCARPUS.

CL. 21, OR. 1.—*Monæcia monandria*.

NAT. OR.—*Urtica*.

This

This name is derived from two Greek words, signifying bread and fruit.

GEN. CHAR.—There is no calyx to the male flower, the anentum is cylindrical, all covered with florets; the corolla to each two petals, oblong, concave, blunt, villose; the stamen is a single filament within each corolla, filiform, the length of the corolla, oblong: The female flower has no calyx nor corolla; the pistil has very many germs, connected into a globe, hexangular; style to each filiform, stigma single or two, capillary, revolute; the pericarpium is an ovate globular fruit, compound, muricate; seeds for each germ solitary, oblong, covered with a pulpy aril, placed on an ovate receptacle. There are two species the *integrifolia* or *jack tree*, and

INCISA. NOTCHED.

Leaves gashed.

This tree grows to the thickness of a man, and forty feet high or more; the trunk is upright, the wood soft, smooth, and yellowish, the inner bark white, composed of a net of stiffish fibres, the outer bark smooth, but full of chinks, pale ash colour, with small tubercles thinly scattered over it. Wherever the tree is wounded it pours out a glutinous milky liquor. The branches form an ample almost globular head; the lower ones, which are the longest, spring from the trunk alternately ten or twelve feet above the ground, spreading out almost horizontally, scattered and in a sort of whorl; twigs ascending, bearing flowers and fruits at their ends. Leaves alternate, petioled, ovate, deeply divided above the middle into seven or nine lanceolate acute lobes, with rounded sinuses; they are otherwise quite entire, smooth on both sides, even, spreading, bright green, paler underneath, membranaceous, a foot and a half or two feet in length, ten to fourteen inches wide, veined, having a thick nerve to each lobe, diverging from the common rachis. The younger leaves, like all the more tender parts of the tree, are glutinous to the touch; petioles roundish, even, ascending, two inches in length; stipules in pairs, involving the younger leaves, lanceolate, acuminate, concave, entire, smooth within, hairy on the outside, deciduous, five or six inches long: peduncles at the ends of the twigs, and in the axils of the upper leaves, solitary, round, upright, having a few hairs on them, and two inches in length. The male flowers are among the upper leaves, and the female flowers at the ends of the twigs; the male ament is club-shaped, fleshy, upright, a span long, covered with innumerable small, sessile florets; the proper perianth is very small, two-valved, the valves equal, oblong, blunt, concave, closely adhering, shut, yellowish brown; these have no spathes. The female flowers have bivalve spathes, ovate-lanceolate, compressed, acuminate, upright, bent in at the tip, soft, a span in length, at first closed, then deciduous, placed at the end of the peduncle; spadix globular, covered with very many connate germs; these are ob-conical, immersed in the receptacle, somewhat convex at the top; styles scarcely any; stigmas projecting points, withering, in some varieties bifid. The fruit is a globular berry, smoothish, marked with hexagons on the surface, pale green, when largest, a long span or nine inches in length, filled with a white farinaceous, somewhat fibrous, pulp, which, when the fruit is ripe, becomes sweet, juicy, and yellow; it is fastened to a club-shaped, fleshy receptacle, which is longitudinally fibrous, and a hand in length.

This valuable plant is a native of the South Seas, and upwards of three hundred plants were landed in this island, in the year 1793, from his Majesty's ship Providence, Captain William Bligh. These plants were distributed in the most judicious manner.

under

under the direction of a committee of the honourable House of Assembly; and have been cultivated in every part of this island with great success, though not in so extensive a manner as they deserve. The trees thrive well almost every where, and grow to as large a size as in their native soil, bearing abundance of fruit, and forming an excellent addition to the many other articles of subsistence which this island possesses.—The warts which cover the surface of the thick rind of this valuable fruit are of a quadrangular or diamond like figure, but without points. The internal part of the rind or peel, consists of a fleshy substance full of twisted fibres, which has the appearance of fine wool; these adhere to, and in some measure form it. The fleshy part of this fruit becomes softer towards the middle, where there is a small cavity formed without any nuts or seeds, except in one variety, which has but a small number, and this sort is not good unless it is baked, or prepared some other way: but, if the outward rind be taken off, and the fibrous flesh dried, and afterwards boiled with meat, as we do cabbage, it has then the taste of artichoke bottoms. The leaf is large and dark coloured, and, when young, has a covering which is pushed off as the leaf gathers strength. The trunk, branches, and leaves, when broke, or cut, exude very plentifully and freely a milky juice, which boiled with cocoa nut oil makes a very strong birdlime. Caoutchouc, or Indian rubber, may also be obtained from it by exposure to the air; or if oxy-muriatic acid be poured into it the caoutchouc precipitates immediately.

There is a variety with deeply gashed and another with entire leaves, but the principal variety is that which bears fruit with seeds, and is much taller and larger in every respect than the other. The seeds are almost as large as chesnuts, oblong, somewhat angular, produced into a point at each end, separated by several little membranes or coats, formed by the abortion of some of the germs; they are attached to a fleshy and very considerable placenta, which occupies the centre. They are farinaceous like the chesnut, and are eaten, in some places, by the savage inhabitants, either boiled or roasted. In Otaheite they reckon eight varieties of that without seeds, differing in the form of the leaves and fruit. One of these they name *uru*, which has a globular smooth even fruit, and is the most common. A second, named *maira*, has an oval smooth fruit, with the leaves more deeply cut: A third, called *patea*, has the fruit oblong and rugged, as it were scaly: A fourth *tatara*, has an oval fruit, with mamillary germs, mucated by the permanent style. It is believed most if not all of these varieties are to be found in this island, and perhaps the different modes of cultivation may still further increase them. The wood of all in body and branches is very soft and brittle, having a considerable pith or hollow; and the branches, especially of young trees, are very liable to be broken by high winds.

The fruit, when used as a bread kind, is gathered before perfectly ripe, and is best roasted whole in an oven, and the rind afterwards scraped off, the inside is then soft and white, tasting much like sweet cassada, to which its texture has also considerable resemblance, but it is not palatable if kept for any length of time after being cooked. Fritters may be made of it, and it forms a good ingredient in puddings. In any way it affords a great deal of nourishment, especially when boiled, and being, it is said, of a gentle astringent quality, is good for persons of a lax habit. The tree is useful not only for food but for clothing; for the bark is stripped off the suckers and formed into a kind of cloth.

It is a hardy plant enough, and easily propagated by suckers, and cuttings of the roots. The suckers rise in great numbers from the horizontal roots, which extend a considerable length from the tree. When the roots are taken for plants, each slip or

cutting must have an eye or joint to germinate from ; they should be at least the size of a man's finger, and divided into pieces five or six inches in length, and laid just below the surface of the soil in a shady place, and watered every evening until they strike root and send up shoots. On cutting the plants the ends should be covered with clay, tar, or any other substance that will prevent the sap from oozing, which greatly facilitates the growth. They will bear fruit in four years, or even less time, in a favourable situation, from the time of planting. From the first appearance of the fruit they are fit for the table in little more than a month.

See JAACK TREE.

### BREAD-NUT-TREE.

### BROSIMUM.

CL. 22, OR. 1.—*Dioecia monandria*.

This name is derived from a Greek word signifying eatable.

GEN. CHAR.—Male calyx a common globular amentum, covered on all sides with imbricate, orbicular, peltate, membranaceous, deciduous scales, three larger, surrounding the base of the ament, and others smaller, of an irregular shape, between each of which the stamens break out. There is no corolla; the stamens are solitary filaments, very short, cylindric, with bilamellate anthers; lamellas orbicular peltate; lower gaping from the upper; dispersing a globular pollen; the pistil has the germ at top, included in a spongy ament, very small, ovate, abortive; style single, upright, bifid at the tip; stigmas reflex, simple. The female blossoms are on a different tree, having an amentum like the male; no corolla; the pistillum has a globular germen (the scaly body of the ament itself); the style springing from the middle of the germen at top, long, bifid; stigmas simple, sharp, a little reflex; the pericarpium is a berry pedicelled, corticose, spherical, one-celled; the seeds solitary, with a two-lobed kernel, surrounded by a thin membrane, and bipartite. Two species grow in this island, the *purium*, or milk-wood, and the

### ALICASTRUM.

*Arboreum, foliis ovatis alternis, fructibus solitariis.* Browne, p. 372.

Leaves ovate-lanceolate, perennial; aments globular, pedicelled, solitary, axillary; fruit corticose.

This tree is frequent in the parishes of St. Elizabeth and St. James, and in both has been computed to make up a third part of the woods. The timber is not despicable, but the leaves and younger branches are more useful, and a hearty fattening fodder for all sorts of cattle. The fruit, boiled with salt fish, pork, beef, or pickle, has been frequently the support of the negroes and poorer sort of white people, in times of scarcity; and proved a wholesome and no unpleasant food. When roasted it eats something like our European chestnuts, and is called *bread-nut*. The leaves and younger shoots are full of gum, which renders them disagreeable to most cattle at first, but they soon grow very fond of them.—*Browne*.

They are propagated by the birds and rats from the seed; and sometimes they have been

been planted in the dryer pasture lands of the South side. I have observed that every old fence in such places is a nursery for these and other valuable trees; which observation may furnish a good hint for the successful planting them, the shade of the fence generally keeping the ground beneath much more cool and moist than it is in the open pasture; the soil is also richer, from the mould of decayed leaves and vegetables.—Hogs are extremely fond of this fruit, which makes them fat. What is called the *bread nut* in St. Ann is a tree of large diameter, and very proper for cabinet work. It is excellent timber.—*Long, p. 768.*

These trees grow to a very considerable size, having been found five feet in diameter and sixty feet in height before they branched. The trunk is very straight and the foliage beautiful. The wood is finely veined, very hard, close-grained, and ponderous; the heart is not unlike mahogany in colour, and the sap like box. It blossoms in April and May. It has lately been found to make good puncheon staves, which answer nearly as well as the white oak, and will be a very great advantage to those districts in this island, where they grow in abundance. Were proper care taken to cultivate them generally, which might easily be accomplished, they would furnish a source of future supply, and contribute to render this island still less dependent on the woods of America for so necessary an article to our commerce as puncheon staves. But this is not the only advantage that would arise from the propagation of this valuable tree, as it would also furnish a rich resource in times of scarcity, or famine, as food for the negroes; and they are said to bear fruit in four years from the time the seed is planted.—Mr. Robinson, in his manuscripts, mentions a gentlewoman in St. Elizabeth's who, having plenty of these trees on her property, during the months of July, August, and September, when provisions were not to be had for her negroes, fed them with bread-nuts. Two negroes and nine mules, he says, supplied two hundred and thirty negroes with them. Possessing plants of such inestimable value, indigenous to our own soil, if proper care was taken to cultivate them generally, we should have no occasion to call in the aid of exotics from the South Sea, or elsewhere, to guard us against want. In Europe they plant oaks, but in Jamaica nothing is worthy of attention, it would seem, that does not produce immediate profit. To induce a better system, it is a pity the legislature does not offer a premium for the encouragement of those who may propagate, to a sufficient extent, the useful plants of certain parts of this island, in such districts as are not naturally enriched by them.

See MILKWOOD.

BREYNIA—See BOTTLE-COD-ROOT.

BROAD LEAF.

TERMINALIA.

CL. 23. OR. 1.—*Rabdanilla manescia*. NAT. OR.—*Euragni*.

GEN. CHAR.—Hermaphrodite flowers, at the lower part of the raceme flowering first. Calyx a one-leaved superior perianth, five-cleft, coloured within; segments ovate, acute, equal; no corolla; nectary pitcher-shaped, in the bottom of the calyx, consisting of five small hisped corpuscles; the stamina are ten filaments, awl-shaped, from erect spreading, longer than the calyx, and inserted into the bottom of

of it, with roundish erect anthers; the pistil has an inferior germ, ovate-oblong; style filiform, erect, length of the stamens; stigma simple; the pericarp is an oval boat-shaped drupe, depressed, two-grooved, or compressed acuminate; seed an oval-oblong nut, two-valved; kernel oblong. Males superior, flowering later: calyx as in the hermaphrodite; no corolla; nectary and stamina as in the hermaphrodite. Two species are natives of Jamaica.

1. LATIFOLIA. BROAD-LEAVED.

*Arbor maxima forte prunifera, cortice cannabino, folio longissimo latissimoq.* Sloane, v. 2, p. 130. *Foliis amplis serratis, ob-ovatis cum acumine; capsulis bigemminis.* Browne, p. 253.

Leaves ob-ovate, subserrate; drupes fleshy.

This tree has a very large trunk, and grows to a vast height, covered with a grey or very light brown bark, seeming to be loose and come off in long pieces; it has here and there some knobs or eminences on its surface, the leaves are large and long. It grows in all the inland great woods of Jamaica.—Sloane.

This tree grows to a very considerable height, having a proportionate body, being frequently sixty feet high before it reaches the branches, and twelve feet in circumference. The trunk is generally straight, and tapers gently from the bottom to the top. The branches stretch horizontally, and so equal that the leaves seem to be placed in a perfect level, as if regularly clipped. These branches project from the tree at certain intervals, where the stem is left bare, and diminishing in length as they approach the summit, gives the tree a very beautiful appearance. The leaves are eight or ten inches long and four broad near the point, where broadest. At the base they are narrowest, being there reduced to almost a point, and increase gradually until within about two inches of the end where they are rounded off. They come out from the branches in little circular clusters of ten or twelve together on a common barky inch long footstalk, having each of them a green round pedicel of nearly the same length. They are of a deep green colour, but paler below, having a strong prominent mid-rib and veins. It is a very good timber wood and splits easily into shingles, which will last from twelve to fifteen years before they decay. The heart of the tree is the worst part, and it frequently happens that boards of it split into two from having some inches of soft pithy substance in their centre. The larger sized trees, are on this account most frequently sawn or split into two, and the two halves lined for boards the reverse way. In A. Robinson's notes, the kernel of the fruit of this tree is said to be as good as an almond kernel; and the decoction of the root cures the diarrhoea.

2. ARBUSCULA.

Leaves ovate-lanceolate, entire, pubescent; branches dichotomous; racemes erect.

BROADLEAVED BROOMWEED—See MARSH MALLOW.

BROOM WEED.

Cl. 13, ca. 1.—*Polyandria monogynia.*

CORCHORUS.

Naz. 93.—*Tiliacea.*

This

This generic name is derived from a Greek name for a pot-herb, said to be very bitter.

GEN. CHAR.—Calyx a five-leaved perianth; leaflets linear-lanceolate, acute, erect, deciduous; corolla five-petalled, oblong, obtuse, narrower beneath, erect, length of the calyx; the stamina are numerous filaments, capillary, shorter than the corolla, with small anthers; the pistil has an oblong germ, furrowed; style thick, short; stigma two-cleft; the pericarp is an oblong, five-celled, five-valved, capsule; seeds very many, cornered, pointed. Two species are natives of Jamaica, *siliquosus* and *aestuans*; and two others, natives of the East Indies, have lately been introduced by Dr. D. Brown.

1. SILIQUOSUS.      PODDED.

*Corchoro affinis, chamaedryos folio, flore stamineo, seminibus atris quadrangulis duplici serie dispositis.* Sloane, v. 1, p. 145, t. 94, f. 1. *Foliis minoribus ovatis crenatis, floribus singularibus.*—Browne, p. 147.

Capsules linear, compressed, two-valved, two-celled; leaves lanceolate, equally serrate.

This Browne calls *broomweed*, and it is also named *germander leaved corchorus*. It is an herbaceous plant, but branched like a shrub, with a round smooth stem, and alternate, upright, pubescent branches; leaves petioled, alternate, small, nerved, smooth, with smaller leaves in the axils; stipules subulate, opposite. This is a common plant in all the sugar colonies, and seldom rises above three feet; it grows in sandy places, and is generally used for besoms by the negroes.—*Swartz & Browne*.

Barham calls this plant *pimpernell*, and says it "Has a very deep-blackish coloured root, which sends up a round brownish woody stem, rising three or four feet high, being divided into branches on every hand. The leaves come out several together, some greater, some smaller, at half an inch distance, on half-inch long foot-stalks; they are half an inch long, and a quarter broad at the base (where broadest), of a grass-green colour, indented about the edges like germander, but smooth. Opposite to the leaves come yellow flowers, being stameneous; after which follows a two-inch long dark pod, or seed vessel, shutting like those of the sesamum, but more like the spirit-weed, only having two round sides, and a partition in the middle; in which are two rows of seeds, black and quadrangular. The pod, when ripe, opens at the end, and scatters the seed like as the spirit weed."—*Barham*, p. 145.

2. AESTUANS.      BURNING.

*Subvillosa, foliis rotundioribus undulatis atque dentatis; dentibus postremis in setas inermes abeuntibus, floribus alaribus.* Browne, p. 232, t. 25, f. 1.

Capsules three-celled, three-valved, three-sided; angles bifid, scabrous; leaves oblong, the lowest serratures setaceous. This has three bifid styles.

The stem is strong rising two or three feet, divided at top into two or three branches; leaves on long petioles, and between them several smaller leaves nearly of the same form, sitting close to the branches; the flowers come out singly on the side of the branches. Browne says it is a native of Jamaica, but not common; the stem and branches slender; leaves roundish, jagged, and undulated; the bark of a brown colour.

3. OLITORIUS.

## 3. OLITORIUS. GARDEN.

Capsules oblong, ventricose; the lowest serratures of the leaves setaceous.

This is a native of the East Indies, and is called the *bristly leaved C*, or *common Jews mallow*. It grows about two feet high, having sessile solitary yellow flowers. It is sown in great plenty about Aleppo as a pot herb, and the Jews there boil the leaves and eat with their meat.

## 4. CAPSULARIS. CAPSULAR.

Capsules roundish, depressed, wrinkled; the lower serratures of the leaves setaceous.

This has heart shaped leaves, and is also a native of the East Indies. It rises with a slender stalk about three feet high.

See MELOCHIA and MOUNTAIN BROOMWEED.

BROWN JOLLY—See EGG PLANT.

BRUNFELSIA—See TRUMPET FLOWER.

## BRYONY.

## BRYONIA.

CL. 21, OR. 10.—*Monoecia syngenisia*. NAT. OR.—*Cucurbitaceæ*.

GEN. CHAR.—The male calyx is a one-leaved, bell-shaped, five-toothed, perianth; the corolla five-parted, bell-shaped; filaments three, very short; anthers five, two connate on each of two filaments, and a single one on the third. The female flowers have the calyx as in the male, superior, deciduous; corolla as in the male; the pistil has an inferior germ, a trifid style, emarginate stigmas; the pericarpium is a sub-globular smooth even berry; seeds few, fastened to the coat, sub-ovate. One species is a native of Jamaica.

## RACEMOSA. RACEMED.

*Foliis hirtis, trilobis vel quinquelobis, denticulatis; racemis minoribus alaribus*. Browne, p. 355.

This Browne calls the *mountain bryony*, and says he found it growing wild in the mountains of New Liguanea. It runs a great way and bears small roundish berries, which contain each three or four, or six seeds. The stigma or top of the style, is, in each female flower, divided into three thin reflected lobes, and the fruit seldom exceeds three-quarters of an inch in diameter.—*Browne, p. 355.*

## No English Name.

## BUCHNERA.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Personata*.

This was so named by Linneus in honour of A. E. Buchner, a German naturalist.

GEN. CHAR.—Calyx a perianth, one-leaved; obscurely five-toothed, scabrous, permanent; corolla monopetalous, tube long, filiform, bowed; border flat, five-cleft, equal.



equal; stamina very short, in the throat of the corolla; anthers oblong; the pistillum has an ovate oblong germ, filiform style, and obtuse stigma; the pericarp is an acuminate capsule, covered, two-celled, gaping at the top into two parts; partition contrary; the seeds numerous, angular; receptacle fastened to the middle of the partition. One species was discovered in this island by Swartz.

ELONGATA.

Leaves entire, opposite; calyxes somewhat hairy, longer than the fruit.—Sw.  
Pr. p. 92.

BUCK-THORN.

RHAMNUS.

Cl. 5, OR. 1.—*Pentandria monogynia*.

NAT. OR.—*Dumosa*.

This is derived from the Latin name of a plant in Pliny.

GEN. CHAR.—There is no calyx; corolla an imperforate petal, externally rude, internally coloured, funnel form; tube turbinate, cylindrical; border spreading, divided, acute; scalelets five, very small, each at the base of each division of the border, converging; the stamens are filaments, as many as there are segments of the corolla, awl-shaped, inserted into the petal under the scalelet; anthers small; the pistil has a roundish germ, filiform style, the length of the stamens, stigma blunt, divided into fewer segments than the corolla; the pericarp is a roundish berry, naked, divided into fewer parts internally than the corolla; seeds solitary, roundish, gibbous on one side, flattened on the other. Schrober says that part of the flower called the corolla is more properly the perianth, and the scalelets should be named petals. Four species are indigenous to this island.

1. COLUBRINUS. SNAKE.

*Arboreus foliis ovatis venosis, capsulis sphericis inferne ad medietatem caliptratis, pedunculis umbellulatis alaribus, cortice glabro.* Browne, p. 172.

Flowers hermaphrodite, one styled, erect; capsules tricoccous; petioles ferruginous-tomentose.

This is a small upright tree, with most of the branches spreading out horizontally.—The twigs, petioles, peduncles, lower surface of the leaves, and outer surface of the calyx, are covered with a ferruginous nap. The leaves are oblong-ovate, acute, entire, the upper surface smooth and shining, alternate, for the most part distich; racemes short, corymbed, axillary, seven-flowered or thereabouts; flowers without scent, all pointing upwards, with greenish scales; calyx deeply five-cleft; anthers standing out beyond the scales; style single, ending in a trifid stigma; capsule roundish, three-grooved, three-celled, three-valved; the valves opening two ways at the top; seeds solitary, roundish, flattened a little, emarginate, black, and very shining. In high mountain woods it attains the height of twenty feet, while in coppices on the coast it is rarely seven feet high, with leaves four inches long; whereas in the former they are six inches in length. In the island of Martinico the French know it by the name of *bois-soupleire*, or *snake wood*. The bark is of a pleasant bitter taste.

2. SARCOMPHALUS.

## 2. SARCOMPHALUS.

*Foliis ovatis glabris alternis ad apicem leniter emarginatis, cortice, interiori ferrugineo.* Browne, p. 179.

Leaves oval, coriaceous, quite entire, emarginate.

This is called *bastard lignum vite* timber wood, grows in many parts of the island, and rises generally to a very considerable height; the trunk is often above two feet and a half in diameter, and covered with a thick scaly bark. The wood is hard, of a dark colour, and close grain; and is looked upon as one of the best timberwoods in the island.—*Browne*.

It bears a globose fruit with the calyx at the base, about three-quarters of an inch in diameter, and of a very obscure purple; the pericarp is smooth, but little or nothing shining, having a mealy, moist, esculent pulp, not in the least disagreeable, within which is an ovate nut, penetrated by two ovate holes at its upper end, leading to the two cells, in which it not a little resembles the coco-nut. The outside of this nut is somewhat rugged. When young this tree appears widely different from what it does when old, it then having thorns and shining small leaves, though the lower branches of the older trees are thorny also. The leaves have also sometimes thorns upon their margins, which makes it probably, in that state, the *agrifolium folio tenuiore*, &c. of Sloane, v. 2, p. 108, t. 188, f. 2.

## 3. SPHEROSPERMUS. ROUND-SEEDED.

Flowers hermaphrodite, in racemelets; berries roundish, three-celled, pellucid, leaves oblong, serrate, smooth.—*Sw. Pr. p. 50.*

Trunk ten or fifteen feet high, with a smooth bark; branches subdivided, spreading; leaves alternate, acuminate, unequally serrate, nerved, smooth on both sides, very finely veined; petioles roundish, smooth; peduncles axillary, the length of the petioles, short, upright, many flowered; flowers pedicelled, small, green, or yellowish; stipules small, acuminate, at the base of the peduncles; calyxes ovate and cut round at the base, permanent, five-cleft; segments acute, spreading, thickish, deciduous; petals very minute, placed between the divisions of the calyx, on very short pedicels, concave; filaments five, shorter than the calyx; anthers roundish, three-cornered, covered at the back by the petals; germ roundish, at the bottom of the calyx; style shorter than the stamens, trifid; stigmas blunt, contiguous; berry spherical, sometimes three-grooved at the top, the size of a small pepper-corn, placed on the calyx, pellucid, pale-green, containing from one to three oblong three-cornered seeds. It grows in the more temperate parts of Jamaica, in mountain coppices; flowering in August and ripening the berries in October.—*Sw.*

## 4. ELLIPTICUS. OVAL-LEAVED.

*Arborescens minor foliis ovatis venosis, pedunculis umbellatis, alaribus fructibus sphericis.* Browne, p. 172, t. 29, f. 2.

Flowers hermaphrodite, sub-trigynous, axillary, sub-umbelled; leaves elliptic, acute, quite entire, somewhat villose underneath.

This is a shrub becoming in a manner a tree; the branches are round, alternate, rod-like, often reclining or spreading, covered with a smooth brown bark; leaves alternate, blunt, nerved, and veined; nerves approximating; petioles round, filiform, longish, smooth.

smooth; peduncles shorter than the petioles, round, smooth, many-flowered; flowers pedicelled, disposed in a little umbel, whitish green; there are a few minute scales at the base of the umbels; calyx cut round at the base; border five-cleft, deciduous, segments ovate, spreading; petals or scalelets inserted between the segments of the calyx, minute, vaulted; filaments the length of the petals, and concealed under them; gerin roundish, placed at the base of the calyx, or on the receptacle; style three-parted to the base; stigmas blunt. Fruit placed at the base of the calyx, sub-tricoccous, three-celled, covered with a juiceless skin, and, when that bursts, divisible into three parts, like those of a capsule, opening within and at the top; with membranaceous partitions; seeds solitary, oblong, flattened a little, smooth, black. The fruit, when ripe, and without the skin, being cut transversely above the middle, appears to be tri-capsular and sex-valvular. It is very nearly allied to the *colubrinus*, but that has the branchlets, petioles, and peduncles, ferruginous-tomentose; the style three-sided, trifid only at the top.—*Sw.*

Near the margin of the leaflets is a small gland on each side, and beyond this there is one, sometimes two or more, at uncertain distances. It happens frequently that there are three glands on one side and only one on the other, which may be plainly seen on the under side of the leaf with the naked eye. In the centre of the cup may also be seen a large depressed nectarium, divided by so many eccentric furrows into five equal parts, bedewed with nectar, which the bees and other insects feed upon.—The nectarium is permanent, and seems united or fixed to the base of the perianth, and forming a rim or border round the fruit, while the base of the cup adhered to its bottom. The tree grows about twelve feet high.

Browne calls this the *shrubby rhamnus with bilocular berries*, but in the figure the fruit seems to be tricoccous. In Martyn's Dictionary this is also made *ceanothus rectinatus*.

## BUCK WHEAT.

## POLYGONUM.

CL. 8, OR. 3.—*Octandria digynia.* NAT. OR.—*Holoraceæ.*

GEN. CHAR.—See Arsmart, p. 32.

SCANDENS. CLIMBING.

*Fegopyrum scandens, seu volubilis nigra major, flore et fructu membranaceis, subrotundis compressis.* Sloane, v. 1, p. 133, t. 90, f. 1.

Leaves cordate; stem erect, scandent.

This woodbine has round, red, succulent stalks, by which it winds and turns itself round any tree or shrub it comes near, rising seven or eight feet high. It has every inch or half inch towards the top leaves growing out of the stalk alternatively. They have a quarter of an inch long footstalks, are grass-green, juicy, smooth, thick, an inch and a quarter long, and one inch over at the base, being of a triangular heart figure. The flowers come out from the upper axils, they are very many, in spikes three inches long, on a very short peduncle; they are round, flat, swelled out in the middle, and green, having a thin white membrane round them, like a parsnip seed:

R

when

when the seed is ripe these membranes become somewhat larger, and the protuberant part in the middle turns brown. It grew among the trees, near the ruins of a monastery in Spanish-Town.—*Sloane*.

The grains of this plant are hot and dry, and of thin and subtle parts; they are good against hysterics, and are esteemed great provocatives.—*Barham*, p. 25.

See ARSMART.

No English Name.

BUDDLEA.

CL. 4, OR. 1.—*Tetrandria monogynia*.

NAT. OR.—*Personata*.

This was so named by Dr. Houston from Adam Buddle, who is often mentioned in Ray's Synopsis.

GEN. CHAR.—Calyx a small four-cleft perianth; corolla one-petalled, bell-shaped, four-cleft halfway, erect, three times larger than the calyx; stamina four filaments, very short, placed at the divisions of the corolla, with very short simple anthers; the pistil has an ovate germ, style simple, shorter by half than the corolla, stigma obtuse; the pericarp is an ovate, oblong capsule, two furrowed, two-celled; seeds numerous, extremely minute; adhering to a fungous receptacle. One species is a native of Jamaica.

AMERICANA. AMERICAN.

*Verbasci flore minore, arbor, floribus spicatis luteis tetrapetalis, seminibus singulis oblongis in singulis vasculis siccis.* Sloane, v. 2, p. 29, t. 173, f. 1. *Assurgens incana, foliis majoribus molli lanugine obductis, spicis assurgentibus terminalibus.* Browne, p. 144.

This shrub rises from five to ten feet, branched, and all over hoary; leaves ovate-lanceolate, opposite, serrate; flowers in long slender spikes, axillary, and terminating; composed of little, opposite, many flowered crowded racemes; corolla coriaceous, scarcely longer than the calyx; divisions upright, yellow within, hoary on the outside.—*Sw.*

This has a trunk as thick as one's leg, a white smooth bark, with several branches, whose ends are bowed down towards the ground; the leaves come out opposite to one another towards the ends of the branches; they have scarce any footstalks, are three inches long and half as broad, green above and white underneath, somewhat like viburnum leaves. The tops of the twigs are branched into several inch-long stalks, every one of which is very thick and close beset, with many tetrapetalous small yellow flowers, which have a pale greenish calyx and no footstalk; to each of which follows an oblong or oval brown capsule, which is filled with a pretty large brown seed. It grows near the banks of the Rio Cobre, in most gullies.—*Sloane*.

Dr. Browne calls it the *long-spiked buddleia*, and says it is very common in the cooler hills of Liguanea; that it rises there only four feet or better, terminating in long slender flower-spikes. It is used in emollient baths and fomentations, and thought to have all the properties of the true mullein.—*Browne*.

The

The *globosa*, or round headed buddlea, a native of Chili, with leaves lanceolate, heads solitary, has also been introduced into this island.

## BULL-HOOF OR DUTCHMAN'S LAUDANUM.

## PASSIFLORA.

CL. 20, OR. 4.—*Gynandria pentandria*. NAT. OR.—*Cucurbitaceæ*.

This name was altered by Linneus from the old name *flos passionis*, which was given to it from a fancy that all the instruments of our Saviour's passion was seen in the flower.

GEN. CHAR.—The calyx is a five-parted perianth, flat and coloured; corolla five-petals, semi-lanceolate, flat, blunt, of the same size and form with the calyx; nectary a triple crown, the outer longer, encircling the style within the petals, more contracted above; the stamens are five awl-shaped filaments, fastened to a column at the base of the germ, and united at bottom, spreading; with incumbent, oblong, blunt, anthers; the pistil has a roundish germ, placed on the apex of a straight cylindrical column; styles three, thicker above, spreading, stigmas capitate; the pericarp is a fleshy berry, sub-ovate, one-celled, pedicelled; the seeds very many, ovate, arilled; receptacle of the seeds triple, growing longitudinally to the rind of the pericarp. Eighteen species of this genus are enumerated as indigenous to Jamaica, of which the *bull-hoof* is one.

## MURUCUJA.

*Foliis tenuioribus, trinerviis bicornibus, lunatis; sinu anteriori obtuso.*  
Browne, p. 228.

Leaves ovate, undivided at the base, dotted underneath; nectary one-leafed.

Stem herbaceous, grooved, smooth; leaves ovate or oblong, two horned, with an intermediate bristle, three-nerved, veined, smooth, entire; dots on the back hollowed, pellucid; petioles grooved, smooth, destitute of glands; tendrils sub-axillary, filiform, long; flowers in pairs, axillary, scarlet, large; peduncles longer than the petioles, having two very small filiform stipules in the middle; petals almost upright, blunt, a little smaller than the calyx; nectary one-leafed, tubular, growing on the petals and calyx, with a yellow crown at the throat; column longer than the corolla, erect; berry ovate, the size of a pigeon's egg, pedicelled.—*Sw.*

This plant is a climber (like most of the other species), whose fruit is of an oblong-oval form, about the size of a large olive, and of a fleshy colour when ripe. Both the syrup and the decoction of the plant is now much used in the leeward parts of the island, where it is frequent; and is said to answer effectually all the purposes to which the syrup of poppies and liquid laudanum are generally administered. The flowers have been hitherto the most in use; they are commonly infused in, or pounded and mixed immediately with, wine or spirits, and the composition generally thought a very effectual and easy narcotic.—*Browne.*

See GRANADILLA—HONEY-SUCKLE—PASSION FLOWERS—WATER-LEMON.

## BULLY-TREE.

## ACHRAS.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Dumosa*.

This generic name is derived from the Greek name of a tree in Theophrastus, commonly translated the wild pear.

GEN. CHAR.—Calyx a six-leaved perianth; leaflets ovate, concave, erect; outer broader, shorter, inner-coloured; corolla one-petalled, ovate, of the same height with the calyx; border cut into six sub-ovate flat divisions; scales at the jaws of the corolla, equal in length to the divisions, narrower, spreading, emarginate; the stamens are short awl-shaped filaments at the jaws of the corolla, alternate, with the divisions bent inwards, with sharp anthers; the pistil has a roundish flat-topped germ, awl-shaped style, longer than the corolla; stigma obtuse; the pericarp is a globose succulent pome, twelve-celled; seeds solitary, ovate, shining, scarred on one side, and pointed at the base. Two species only are reckoned in this island the *mammosa*, or *manmee sapota*, and the *sapota*, or *naseberry*. The naseberry bully-tree has been thought only a variety of the former, but is certainly a very distinct species.

*Species Doubtful.*

*Anona maxima*, foliis laurinis glabris viridi fuscis, fructu minimo rotundo viridi flavo, seminibus fuscis, splendentibus, fissura alba natatis. Sloane, v. 2, p. 172, t. 169, f. 2. Caudice altissimo, fructu minori, semine mucronato. Browne, p. 201.

The naseberry bully-tree has a trunk as big as an oak, and riseth much higher, having a bark of a light brown colour, with very deep furrows in it; the branches, which are many, are at their ends beset with a great many leaves, without any order, of an oval shape, green colour, smooth, thin, and dry. The fruit is about the bigness of a nutmeg, having its outward skin rough like a naseberry. The pulp is first austere, but, after lying, sweet, and has within it a great many oblong, compressed, black, shining, seeds, with a white edge, slit, or fissure, exactly like that of the naseberry, only in every thing larger. It is one of the largest trees in the island, and the timber of great use. The fruit is eaten and not unpleasant.—*Sloane*.

This is so called by the Jamaicans, for its fruit when ripe is as black as a bully or damson, but in shape of a Lucca olive; pigeons feed much upon them, and they make them very fat: Its timber is very strong and lasting.—*Barham*, p. 25.

The naseberry is called the bully-tree, because it generally grows the tallest of all the trees in the woods: its fruit is small, and the seeds oblong and narrow. It is esteemed one of the best timber trees of Jamaica. The bark of the naseberry bully-tree (as well as all species of the *achras*) is reckoned very astringent, and all indiscriminately now go by the name of *cortex Jamaicensis*, their bitter astringent taste having for a time imposed on some of the people, who thought either the one or the other to be the true jesuits bark, and on this account had frequently administered them among the negroes, where they were often observed to answer all the purposes of that medicine, as all bitter astringents will do on robust constitutions, when the disease proceeds immediately from a weakness of the viscera, and a gross undigested chyle: this brought them first into some vogue, and they have been frequently, since that time, brought into England for

for further experiments; but are much more likely to prove successful here than in America, where those fevers that generally put on the appearance of intermittents, are attended with nervous symptoms, and often mortal; therefore must require medicines that act more effectually on the whole habit, and whose active particles can stimulate and provoke the oscillations of the nervous filaments in the more remote parts of the body. These different barks yield a large quantity of extract, which in taste and appearance seems to be the same with that of the jesuits bark, which has occasioned it to be frequently substituted in the room of that drug; and this, I am persuaded, costs many a life in those colonies, where remittent fevers are so frequent and mortal. It is, however, an excellent astringent, and a very convenient and elegant preparation in that form, which may be administered, with great propriety and success, whenever astringents of a long continued action are properly required.—*Browne, p. 202.*

The bark of these trees has been also found very useful in curing putrid ulcers, by giving a strong decoction of it inwardly, and fomenting the ulcers therewith.

*See MAMMEE SAPOTA and NASEBERRY.*

*BULRUSH—See RUSH.*

#### BUR BARK.

#### TRIUMFETTA.

CL. 11, OR. 1.—*Dodecandria monogynia.* NAT. OR.—*Columniferae.*

So named in memory of G. B. Triumfetti, author of *Hortus Romanus.*

GEN. CHAR.—Calyx a five-leaved perianthium; leaflets lanceolate, arilled below the tip, deciduous; corolla five-petalled; petals linear, erect, obtuse, concave, bent back, awned below the tip; stamina are sixteen filaments, equal, ascending, length of the corolla, awl-shaped, erect, with simple anthers; the pistil has a roundish germ, style length of the stamens, stigma bifid, acute; the pericarp a globular capsule, fenced on every side with hooked prickles, four-celled; seeds two, convex on one side, angular on the other. One species is a native of Jamaica.

SEMITRILoba. HALF-THREE-LOBED.

*Agrimonia lappacea inodora, folio subrotundo dentato.* Sloane, v. 1, p. 211. *Villosa, foliis inferioribus angulato ovatis, serrato dentatis; floribus ternatis; fasciculis geminatis; foliis sub-oppositis.*—*Browne, p. 233.*

Flowers complete; leaves half-three-lobed.

This rises to four or five feet high, being divided into several smaller branches towards the top, which are beset with several leaves, without any order. They are almost round, rather club-shaped, though a little pointed, with two sinuations, indented round the edges, woolly, of a deep green colour above, and paler below, having some eminent ribs going from the centre of the footstalk through the leaf. The flowers stand on the tops of the branches in a spike, are yellow, the petals long, like those of English agrimony, only narrower. After these follow, on a crooked footstalk, several brown round burs, thick set with hooked prickles, sticking to any thing.—*Sloane.*

*The*

The anthers of the plant are always in the form of a heart, and the blossoms, which generally grow in two distinct parcels near the axæ of the leaves, are sustained by a few narrow stipulæ, that perform the office of an involucre, and half the capsula is echinate, the other smooth. The plant is common in Jamaica, and rises frequently to the height of six or seven feet, where the soil is rich and well supplied with moisture.—The leaves and tender buds, when infused for any time in water, yield a fine clear mucilage; from whence we may conclude it to be an excellent emollient. The bark is tough and strong, and serves for ropes and other little conveniences of that kind, among those who inhabit the inland parts of the country.—*Browne*.

## BUR-GRASS.

## CENCHRUS.

CL. 23, OR. 1.—*Polygamia monoecia*. NAT. OR.—*Gramina*.

GEN. CHAR.—Calyx has many involucre, lacinate, echinate, gathered into a head, each sessile, including three calyces, biflorous; perianth a bivalve glume, lanceolate, concave, acuminate, biflorous, shorter than the corolla; corolla one male, the other hermaphrodite: stamens to each three capillary filaments, length of corolla, anthers sagittate; the pistil has the germ in the hermaphrodite roundish, style filiform, length of the stamens; stigmas two, oblong, hairy, spreading; there is no pericarp; the seed is roundish. Four species are natives of this island.

## 1. ECHINATUS. HEDGE-HOGGED.

*Gramen echinatum maximum spica rubra vel alba*. Sloane, v. 1, p. 108. *Spica oblonga simplici echinata*. Browne, p. 367.

Spike oblong, conglomerate.

This grass has several two or three inch long thready roots, sending out several inch and a half long leaves, of a yellowish green colour, from the middle of which rise several six inches long stalks, jointed; the joints are three-quarters of an inch distant from each other, at which are now and then branches which are crooked, having leaves, and at the top an inch and a half long spike of little burs, or large round prickly seeds, sometimes reddish and sometimes green; the prickles being long, strong, and sharp, standing on every side, having within them some oblong, large, flat, whitish seeds.—Of this there are of various sizes. From the roots go sometimes reddish jointed branches, on which grow tufts of smaller leaves, making the grass creeping. It is troublesome to travellers on foot, these small burs or echinated seeds, sticking close to their garments and stockings.—*Sloane*.

The *cenchrus*, with a simple oblong panicle, and multiparted cups, is one of the most common sorts of grass in the open pastures of Jamaica, and is looked upon both as a wholesome and pleasant food for all sorts of cattle.—*Browne*.

## 2. TRIBULOIDES. TRIBULUS-LIKE.

*Gramen maritimum echinatum procumbens culmo longiori et spicis strigosioribus*. Sloane, v. 1, p. 108, t. 65, f. 1.

Spike glomerate; female glumes globular, muricate-spiny, hirsute.

This



This has a fibrous root, which sends out many trailing, round, yellowish culms, about a foot and a half long, the joints an inch and a half distant, at each of which is a leaf sheathing the internodes, two or three inches long, green-coloured, and harsh like those of the *carex*. At the top stands an inch and a half long spike, set round with small burs, at intervals, having on every side strong sharp prickles, being first green then of a straw-colour. It grew at Gun Cayos, off Port Royal harbour.—*Sloane*.

3. GRANULARIS. GRAINED.

*Gramen cyperoides polystachion, spicis ad nodos ex utriculis seu foliorum alis echinatis prodeuntibus.* *Sloane*, v. 1, p. 120, t. 80.

Racemes double; fruits globular, wrinkle-netted.

This is the *manisuris granularis* of Swartz, who gives its specific character, as follows: Spikes lateral, outer-valves orbicular, with callous dots; sheaths hairy; culm erect.

It has several two or three inches long strings as roots, from whence rises a jointed stalk, three or four inches high, solid, triangular, or flat on one side and round on the other. That part of the leaf sheathing the internodes is rough or prickly, the other part harsh, grassy, with a sharp back like the cyperus grasses, and about half an inch broad, next the culm, where broadest. Towards the top, the leaves, which are always at the joints, are shorter and more swelled, having a row of prickles on the back. Out of the alæ rise branches below and small footstalks above, sustaining one, two, three, or four inches and a half long, green spikes, made up of small seeds, standing each above a very small, scarce discernible leaf.—*Sloane*.

4. SETOSUS. BRISTLY.

Spike linear-oblong; involucre bristly; bristles unarmed, the interior ones villose at the base; hairs ciliate; glumes even.—*Sw. Pr.* 26.

BURN WEED—See THORN APPLE.

BUTTON TREE—See ALDER TREE.

BUTTON WEED.

SPERMATOCOE.

CL. 4, OR. 1.—*Tetrandria monogynia.* NAT. OR.—*Stellata.*

This is so named from two Greek words signifying a sharp pointed seed, these plants having prickly seeds.

GEN. CHAR.—Calyx a small four-toothed perianth, superior, permanent; corolla, one-petalled, funnel-shaped; border four-parted; stamens awl-shaped, shorter than the corolla; anthers simple; the pistil has a roundish germ, simple style, but cloven above, stigmas obtuse; the pericarp is two capsules, connate, oblong, gibbous on one side, flat on the other, obtuse; each two-horned; seeds solitary, roundish. Five species are natives of this island.

1. TENUIOR. SLENDER.

*Scandens, foliis oblongis venis arcuatis refertis, floribus paucioribus constipatis ad alas.* *Browne*, p. 141.

Smooth.

Smooth, leaves lanceolate ; stamens included ; flowers whorled ; seeds rough, haired.

This plant has been called *iron grass*, and is found according to Browne only in the woods, where it grows, sometimes upright and sometimes as a climber, and is therefore called *climbing spermacoce*. When erect it rises to the height of two or three feet, but climbing to double or triple that length. The root is perennial, a foot in length, shooting perpendicularly into the earth and lightly marked with transverse rugæ, and of an acrid nauseous taste. It throws up divers jointed, slender, quadrilateral stems, with marginated or foliated angles, climbing on neighbouring plants or creeping on the ground. It has a brown bark, and the branches come out by pairs. The leaves are placed at the joints in opposition, from one to two or three inches in length, and about a quarter of an inch broad ; their margins are furnished with minute spinous denticles, better known by handling than by the eye, they are furnished with eminent arcuated side veins, and are of a stiff brittle substance, rugged and hard, having no pedicel, but embrace the stems with broad ciliated bases. Between these larger leaves come three or four smaller ones, standing in whorls round the stalks. The flowers grow in slender whorls towards the top of the stalks, round, white, and sessile, having a whorl of leaves close under them ; succeeded by two oblong seeds, having small horns, and ripening in the calyx. The flowers are placed singly, at the axæ of the leaves, when it creeps along the sea beech.

## 2. VERTICILLATUS. VERTICILLATE.

*Pulegium fruticosum erectum verticillis densissimis.* Sloane, v. 1, p. 170. *Fruticulosa atque ramosa, foliis linearibus, floribus constipatis ad alas supremas.* Browne, p. 141.

Smooth, leaves lanceolate ; whorls globular.

Stem shrubby, square, three or four feet high ; branches opposite, decussated, fastigate, four-cornered. Leaves opposite, decussated, lanceolate-linear, with a middle nerve, entire, even on both sides ; branchlets axillary, length of the leaves, opposite ; stipules connate, membranaceous, with whitish bristles ; whorls of flowers embracing, round the joints, small, white, clustered very close together in globular heads. Calyx superior, minute, with two teeth, or three or four ; tube of the corolla very short, four-cornered ; border four-cleft, erect, minute ; filaments standing out, fastened to the middle of the tube ; anthers incumbent, whitish ; germ ovate, ancipital ; style short, emarginate at top or sub-bifid ; seeds naked, compressed, bipartite, crowned, smooth, black, having a small furrow on one side. This plant grows very commonly in all the low and high lands of Jamaica, and in the driest soils. It bears all its flowers at the upper joints of the branches.

## 3. HIRTA. ROUGH-HAIRED.

*Erecta sub-hirsuta, foliis oblongis venis arcuatis refertis, superioribus majoribus appropinquatis, floribus constipatis ad alas.* Browne, p. 141.

Rugged branched ; leaves ovate-lanceolate ; flowers clustered, axillary ; stamens standing out.

Stem herbaceous, from one to two feet high, four-cornered, stiff, striated ; branches erect, four-cornered, with the angles rough-haired ; leaves sub-sessile, entire, nerved, rough-

rough-haired; stipules connate, membranaceous, bristly at the edge. Flowers sessile, small, white; calyx four-toothed, very short; tube of the corolla round, funnel-shaped, border four-parted, reflexed; filaments standing out, anthers blue; germ hispid; style length of stamens, bifid at top; stigmas blue, reflexed; seeds two, covered and united by a skin, crowned with the teeth of the calyx, rough-haired; when stripped of the skin, black and smooth.—Sw.

This is common about all the fields in Liguanea; it seldom rises above twelve or fourteen inches, and is easily known by its oblong leaves and arched veins; it is very like the worm grass at first appearance, but the stalk of this is quadrangular, and hollow, that of the other roundish and smooth.—Browne.

4. VILLOSA. HAIRY.

Villose, simple, leaves ovate-lanceolate, pubescent, the uppermost in fours; flowers in whorls; stamens included.

This species is distinguished from the *hirta* by its more simple stem; oblong leaves, the uppermost in fours; its villosity; the whorls of the flowers, and shorter stamens within the throat of the corolla. They are both annuals.—Sw.

5. SPINOSA. SPINED.

*Erecta simplex, foliis lanceolatis, nervis denticulatis, floribus constipatis ad alas.* Browne, p. 149.

Suffruticose, leaves linear-ciliate, with spinules.

Stem herbaceous, almost simple, subdivided at the base, hard, leafy, four-cornered, rugged, a foot high. Leaves opposite and decussated, sub-sessile, lanceolate-linear, acuminate, nerveless (except the middle); nerves and margins tooth-letted backwards, and somewhat spinulose. Flowers in a sort of globular axillary whorl, involucred with the stipules, clustered, white; stipules membranaceous, bristly at the edge, rigid; calyx two or four toothed; teeth linear, longer than the corolla; tube short, border four-cleft, with ovate segments; filaments included; anthers whitish; style bifid; stigmas erect, included.—Sw.

Browne says this plant is common in all the savannas about Kingston, it rises generally by a simple upright stalk to the height of fourteen or sixteen inches, having from space to space, lanceolate, opposite, embracing leaves. Flowers numerous, white, gathered into compact axillary heads, that grow gradually larger and more distinct as they draw nearer to the top.

## CABBAGE.

## BRASSICA.

CL. 15, OR. 2.—*Tetradynamia siliquosa*. NAT. OR.—*Cruciferae*.

This generic name is supposed to be derived from a Greek word, signifying a garden herb.

GEN. CHAR.—Calyx a four-leaved, erect, converging perianth; corolla tetrapetalous, cruciform; nectareous glands four, ovate, of which one on each side between the shorter stamen and the pistil, and one on each side between the longer stamens and the calyx; filaments subulate, erect; anthers erect, acuminate; the pistil has a columnar germ, the length of the stamens; and a short style the thickness of the germ; stigma capitate, entire; the pericarp is a long silique, flattened on both sides; partition with a prominent columnar top, two-celled, two-valved; valves shorter than the partition.

OLERACEA. POT-HERB.

Root caulescent, columnar, fleshy.

This is the common cabbage, so well known in its description and cultivation. Besides which several other species and varieties have been introduced into this island, and all thrive remarkably well; growing in new and rich land to as large a size or even larger, and with as compact and firm heads as in their native soil; and, from the nature of the climate, they have a much mellow and sweeter taste than in Europe.

All the species of cabbage are supposed to be hard of digestion, to afford little nourishment, and to produce flatulencies. They tend strongly to putrefaction, and run into this state sooner than almost any other vegetable; when putrefied, their smell is likewise the most offensive, greatly resembling that of putrefied animal substances. A decoction of them is said to loosen the belly.

See TURNIP.

## CABBAGE BARK TREE.

## GEOFFROYA.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceae*.

This was so named by Jacquin, in honour of M. Geoffroy, author of a *Materia Medica*, who died in 1731.

GEN. CHAR.—Calyx a one-leaved, bell-shaped, half five-cleft, coloured, perianthium; the two upper divisions diverging, spreading; corolla papilionaceous, banner roundish, emarginate, flat, reflex; wings the same length with the banner, blunt, concave; keel compressed, the same length and figure with the wings; stamens diadelphous (simple and nine-cleft), the length of the keel, anthers roundish; the pistillum has a roundish germ; style subulate; stigma obtuse; the pericarpium is a large ovate drupe, with a longitudinal groove on each side; the seed a sub-ovate nut, woody, rather flattened, with a longitudinal groove on each side, acute, two-valved. There are two species, one of which is a native of Jamaica.

DERMIS.

INERMIS. UNARMED.

*Folius oblongis, obovatis nitidis pinnatis, cortice glabro cinereo.—*

Browne, p. 367.

Without thorns; leaflets lanceolate.

This tree (which is called sometimes the *bilge-water tree*, from its disagreeable smell), rises to a considerable height, and towards the top sends off several branches; the external bark is smooth and grey, internally it is black and furrowed; the leaves are pinnate; leaflets opposite, oblong-ovate, or lanceolate, acuminate, smooth above, nerveless beneath, on short petioles; flowers in clusters upon large branched spikes; calyx very slightly five-parted, with short ovate divisions; corolla pale rose-colour; keel of the corolla ovate, spreading, very slightly divided into two parts; the fruit a large sub-ovate drupe, inclosing a woody nut. The wood of this tree is hard and durable, and takes a good polish; but it is chiefly remarkable on account of the quality of its bark, which has been found to be an excellent vermifuge. It was first noticed to have this quality by Mr. Peter Duguid; but the tree and its virtues have been best described by Dr. Wright. This bark has a sweetish mucilaginous taste, and a disagreeable smell. It is given in cases of worms in form of powder, decoction, syrup, and extract. The decoction is prepared by boiling one and a half ounces of the bark in a quart of water till it acquires the colour of Madeira wine; and the dose from two table-spoonfuls to four, for three mornings, then a dose of oil. In powder fifteen grains, with as much jalap, is a good purge. It commonly produces some sickness and violent effects, as vomiting, delirium, and fever. These are said to be owing to over-doses, or to drinking cold water; it should therefore always be begun in small doses. When vomiting and a burning heat of the stomach take place the cure is effected by chamomile tea, or by salt of tartar or of wormwood taken in lime juice, and swallowed while in effervescence. If these do not stop the vomiting speedily, clysters in addition seldom fail to have the desired effect. The manner of preparing and exhibiting this medicine are stated as follows by Dr. Wright:—

“ The decoction. Take fresh-dried or well-preserved cabbage bark, one ounce.— Boil it in a quart of water, over a slow fire, till the water is of an amber colour, or rather of deep coloured Madeira wine; strain it off, sweeten it with sugar, and let it be used immediately, as it does not keep many days.

“ Syrup of cabbage-bark. To any quantity of the above decoction add a double portion of sugar, and make a syrup. This will retain its virtues for years.

“ The extract of cabbage-bark is made by evaporating the strong decoction in *balneo maria* to the proper consistence; it must be continually stirred, as otherwise the resinous part rises to the top, and on this probably its efficacy depends.

“ The powder of well-dried bark is easily made, and looks like jalap, though not of equal specific gravity.

“ This bark, like most other powerful anthelmintics, has a narcotic effect; and on this account it is always proper to begin with small doses, which may be gradually increased till a nausea is excited, when the dose for that patient is ascertained. But by frequent use we can in common determine the dose, though we chuse to err rather on the safe side.

“ A strong healthy grown person may, at first, take four table spoonfuls of the decoction or syrup, three grains of the extract, or thirty grains of the powder for a dose.

“ A youth, three table spoonfuls of the decoction or syrup, two grains of extract, or twenty grains of powder.

" A person of ten years of age, two table spoonfuls of the decoction or syrup, one grain and a half of extract, or fifteen grains of the powder.

" Children of two or three years old, a table spoonful of the decoction or syrup, one grain of extract, or ten grains of the powder. Children of a year old, half the quantity.

" These may be increased, as above observed, till a nausea is excited, which will depend on the strength, sex, and habit of body of the patient.

" Care must be taken that cold water be not drank during the operation of this medicine, as it is in this case apt to occasion sickness, vomiting, fever, and delirium.— When this happens, or when an over large dose has been given, the stomach must be washed with warm water: the patient must speedily be purged with castor-oil, and use plenty of lime-juice beverage for common drink; vegetable acid being a powerful antidote in this case, as well as in an over dose of opium.

" The decoction is what is mostly given here, and seldom fails to perform every thing that can be expected from an anthelmintic medicine, by destroying worms in the intestines, and bringing them away in great quantities. By frequent use, however, these animals become familiarized, and we find it necessary to intermit it, or have recourse to others of inferior merit.

" The writers of the Edinburgh Medical Commentaries take notice, that the decoction of cabbage-bark always excites vomiting. We find no such effect from it here, and may account for it by their receiving it in a mouldy state. A syrup, therefore, is given there with better effect. They observe also that it has a diuretic virtue, which we have not taken notice of here.

" This bark purges pretty briskly, especially in powder, thirty or forty grains working as well as jalap by stool; but in this way it does not seem to kill worms so well as in decoction.

" Five grains of the extract made a strong man sick, and purged him several times; but, by frequent use, he took ten grains to produce at length the same effect.

" It must not be concealed that fatal accidents have happened from the imprudent administration of this bark, chiefly from over-dosing the medicine. But this cannot detract from the merit of the cabbage-bark, since the best medicines, when abused, become deleterious; and even our best aliments, in too great quantity, prove destructive. Upon the whole, the cabbage-bark is a most valuable remedy, and I hope will become an addition to the *materia medica*."

The following modes of preparing and using this useful vermifuge have also been recommended:—Take four ounces of the green bark, scrape off the outer rind, bruise, and put in two quarts of water; boil them to the consumption of one half the water, and to the strained liquor add a little sugar; a wine glass full of this every morning is sufficient for a grown person taken for three or four days. A dose of one and a half ounce of castor oil should be given afterwards. One tea-spoonful may be given to a child of twelve months old. It sometimes brings on nausea and vomiting, when the dose should be lessened. A fresh decoction should be made every morning, or the old one made to boil before using, as it is very disagreeable after being kept over-night. These directions were given by the late Dr. Affleck, who adds that it is a most excellent medicine for destroying worms, and the most effectual yet known; that it frequently happens that no worms appear, but seldom fails to remove the symptoms, and should be given to children every four or six weeks.

Another mode is to dry the bark, bruise it in a mortar, put water to it, and boil until

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it attains the colour of Madeira wine. When this is settled, take such part of it as is clear, and let it cool, and add to it one third its quantity of rum. Put the vessel containing the mixture into cool water, and, when used, it may be sweetened. The dose, to be given for three mornings in succession, and afterwards a dose of castor oil, is as follows: To a child of eight or ten months old, a tea-spoonful; of two years, two tea-spoonfuls; of six years, one and a half table spoonful; of twelve years, half a wine-glass; a full grown person, a wine-glass full. A decoction of the bark made very strong, and given to a horse or mule to the quantity of a pint at a time, and repeated occasionally, cures them of bots and worms.

## CABBAGE TREE.

## ARECA.

CL. 25, OR. 1.—*Monoecia enneandria*. NAT. OR.—*Palme*.

GEN. CHAR.—Male flower.—calyx a bivalve spathe; spadix branched; proper perianth three-leaved; corolla three acuminate rigid petals; the stamina nine filaments, the three outer longer than the rest: Female flowers, in the same spadix. Calyx a spathe common with the males; proper perianth three-leaved; corolla three acuminate rigid petals; pericarp a sub-ovate berry, fibrose, surrounded at the base with the imbricate calyx; seed ovate.

OLERACEA. POT-HERB.

*Palma altissima non spinosa, fructu pruniformi, minore, racemosa, sparso*. Sloane, v. 2, p. 115, t. 215. *Pinnis inferne vaginantibus, caudice aequali annulato, fructu minori*. Browne, p. 343.

Leaflets quite entire.

The true *cabbage-palm* is the most beautiful, and perhaps the tallest of all trees.—The trunk is perfectly straight, and marked with rings at the vestigia of the footstalks of the leaves. Near the ground it is often seven feet in circumference, but tapers as it ascends, and attains the height of one hundred and seventy or two hundred feet.—The bark is of an ash-colour till within twenty or thirty feet of the extremity of the tree; when it alters at once to a deep sea green, which continues to the top. About five feet from the beginning of the green part upwards, the trunk is surrounded with its branches in a circular manner; all the lowermost spreading horizontally with great regularity; and the extremities of many of the higher branches bend waveingly downwards, like plumes of feathers. These branches when full grown, are twenty feet long more or less; and are thickly set on the trunk alternately, rising gradually superior to one another: Their broad curved sockets so surround the trunk, that the sight of it, while among them is lost, which again appears among the very uppermost branches, and is there enveloped in an upright, green conic spire, which beautifully terminates its great height, and which soon unfolds itself into a new branch. The above mentioned branches are somewhat round underneath, and slightly grooved on the upper side: They are likewise decorated with green pinnated leaves, from eighty to one hundred and twenty each side; some of these are near three feet long, and an inch and a half broad, growing narrower towards their points, as well as gradually decreasing in length towards the extremities of the branches. As there are many thousand leaves upon one tree, every branch bearing many scores of them, and every leaf being

set at a small and equal distance from one another, the beauty of such a regular lofty groupe of waving foliage, susceptible of motion by the most gentle gale of wind, is not to be described. The old or bottom branches wither and drop off while new ones shoot at top, and there are generally from eight to ten branches on the tree. The middle rib in each leaf is strong and prominent, supporting it on the under side, the upper appearing smooth and shining. The pithy part of the leaf being scraped off, the inside texture appears to be so many longitudinal thread-like filaments. These spun in the same manner as hemp or flax make good cordage, as well as fishing nets.

Upon removing the large green bark immediately under the branches, what is called the cabbage is discovered lying in many thin, snow-white, brittle, flakes, in taste resembling an almond, but sweeter. What is called the cabbage flower, grows from that part of the tree where the ash-coloured trunk joins the green part. Its first appearance is a green husky spatha, growing to above twenty inches long and about four broad; the inside being full of small white stringy filaments, full of alternate protuberant knobs, the smallest of these resembling a fringe of coarse white thread knotted: these are very numerous, and take their rise from smaller footstalks; and these footstalks are likewise all united to different parts of the large parent stalk of all. As this husky spatha is opened while thus young, the farinaceous yellow seed in embryo, resembling fine saw-dust, is very plentifully dispersed among these stringy filaments, which answer the use of apices in other more regular flowers.

The cabbage tree grows very plentifully in many parts of Jamaica, and in a favourable situation throws out one of its circular rings on its stem monthly, or about thirteen in one year, which makes its growth during that period full forty inches. This observation was made on a young tree for three years running, in which time it grew full ten feet, being then about thirty feet high from the ground to the branches.

Dr. Smith, in his Introduction to Botany, observes, that in the palm trees of hot countries the sap is said to flow from a wound at any time of the year. This is not the case, at least in the cabbage tree, the coco-nut tree, or the prickly pole, the bark of all which is thin and contains little or no sap, and the wood hard and dry, yielding no perceptible moisture on being wounded.

The cabbage trees are said to abound in the morasses towards Negril Bay, where they grow to the height of one hundred and fifty or one hundred and sixty feet.

One would imagine that a tree of such vast height and slender, with its middle part so hollow and pithy, would easily be blown down, which is rarely known to happen, even in the greatest hurricanes. During these they have been observed violently agitated to and fro, and their tops almost touching the ground, notwithstanding which they recovered their erect posture without breaking, a plain proof how tough and strong the whalebone-like fibres of this tree are.

*Barbadoes cabbage tree, Jamaica cabbage tree, or mountain cabbage*, these trees, says Long, are, in fact, I believe, the same species; and the difference between them in respect to their figure seems to be owing entirely to the situation in which they grow, whether in open ground, or in the midst of woods. In the former case nothing hinders them from assuming that graceful form peculiar to their nature; in the latter, being inclosed on all sides with other lofty trees, they rise spindling and often crooked; and seem to be confined in their growth to a continual ascent, preserving an uniformity of bulk in the shaft from the root upwards, until they have overtopped the whole wood.

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The *Barbadoes cabbage*, which is planted here for ornament, is one of the most beautiful trees in the world. No limits seem to be set either to its age or ascent. Ligon mentions some at the first settlement of Barbadoes above two hundred feet in height; and Ray speaks of another of two hundred and seventy feet or thereabouts.—One hundred feet is a common height. It is propagated from the seeds. The upper part of the trunk, from whence the foliage springs, resembles a well-turned, finely polished baluster, of a lively green colour, gently swelling from its pedestal, and diminishing gradually to the top, where it expands into the branches, elegantly arranged, and waving like plumes of ostrich feathers. From the centre of the summit rises the spathæ or sheath, terminating in an acute point. The trunk itself is not less graceful, being a straight, smooth, slightly annulated column, large at the base, and tapering from thence to the insertion of the baluster or cabbage. This tree is so much revered for its majestic form, that it is not destroyed like the others, for the sake of the cabbage. The Jamaica mountain cabbage is cut for this purpose; and the cabbage, stripped of its outer green coat, appears perfectly white, cylindrical, and formed of several concentric *laminae*. The inner tunicles are sliced, and either eaten raw, with onions, pepper, and vinegar, or boiled and served up with butter; in which way, it most resembles the European cabbage in flavour; or converted into a pickle, in which state it is sent to Great Britain.

The outward texture of the trunk of these trees is used for laths, and other purposes. The spathæ are made into mats by the negroes. The leaf is composed of longitudinal filaments, or thread-like fibres, which, being properly separated, are spun like hemp, and formed into twine and cordage.

The tunicles are extremely thin, and may easily be exfoliated and dried; after being prepared in this manner, they may be wrote upon with a metallic pencil or *stylus*; and will retain the characters so long as the substance lasts, which may be as long as vellum, if care is taken to keep it dry; for this property it seems to resemble the *papyrus* of the ancients. The best cabbage is obtained from this tree when it is young, and not above fifteen or sixteen feet in height. From the real summit of the stem spring two branches full of small flowers; these are followed by small round berries, about the size of a hazel nut, which are devoured by the birds, who mute the stone or seed, by which means there is a continual nursery of these trees, which otherwise would soon be extirpated; for whenever they are cut down, no fresh shoot arises again from the root; and whenever robbed of their top or cabbage, they cease from growing. The external root of the trunk is impenetrable to a musquet ball, though it is scarcely an inch thick. The Spaniards are said to have cased their buildings in the country parts with this covering, which made them defensible against enemies, and equally proof against the assaults of earthquakes and hurricanes. Within this hard integument is a pithy, farinaceous substance, similar to some other of the palm kind.

Dampier, speaking of the trees growing in the island Mindanao, one of the Philippines, mentions a species called by the natives the *libby*. This tree is not unlike the cabbage, the bark and wood hard, and inclosing a white pith. They cut down the tree, and, splitting it in the middle, take out the pith, which they beat well in a mortar, then put it into a sieve made from the same tree, and, pouring water upon it, stir it about, till the water carries the mealy part through into a trough placed underneath. After it has stood until it has settled, they pour off the water, and, taking out the sediment, and drying it, bake it into cakes; this meal they call *sago* or *sagu*, which is exported to other parts of the world, dried in small grains, like comfits. In Java it is called

called *bulum*, and, according to Linnæus, is made of the pith of the *cycas circinalis*.

In the Moluccas the tree is called *laudon*, the pith of which furnishes them with this soft meal for bread, as the leaves serve them for the covering of their houses; and the larger veins for rafters, as the lesser make good cordage; while these leaves are young, they are covered with a kind of woolly substance, which affords materials for stuffs.—They resemble the cocoa trees.

From these descriptions there is reason to believe that the sago tree is of the palm kind, as it bears affinity to those of the West Indies in most respects. The ingenious Mr. Robinson, whom I have before mentioned, was of this opinion, and resolved to make some experiments upon this ground. He took the pith of the mountain cabbage, caused it to be pounded, and the mealy part passed with water through a coarse cloth laid in a sieve. The experiment succeeded to his wish; he obtained a fine white meal in large quantity, which, in the judgment of many persons who tasted it, surpassed in goodness what was imported. It was in the form of an impalpable powder, and in this state boiled to a thickness much sooner than the common sago. That which comes from the East Indies is probably granulated by means of some gum intermixed with it; and the art of bringing it into a granulated form is all that remains for perfecting the Jamaica manufacture; for Mr. Robinson doubted, whether in powder it might keep so long as in the granulated form, but there is no certainty that it would not.—*Long, p. 744.*

The following account of the method of procuring sago from the pith of the mountain cabbage, alluded to by Mr. Long, is from the manuscript of Mr. Robinson:

“On the 7th of February, 1763, I was at an estate of Matthew Wallen, Esq. called Chiswick, in the parish of St. Thomas in the East, when I went down into the morass and ordered a mountain cabbage to be cut down, which seemed about twenty-five feet in length, and very thick. I found the pith of this tree very light and spongy, intermixed with many longitudinal ligneous fibres. On tasting, it appeared mucilaginous, with some slight piquancy, not disagreeable. The tree being cut into junks, which were split and the pith taken out, agreeable to Dampier's method, some of it was well beaten in a wooden mortar, which being put into an old oznaburg towel, held over a pail, I poured some water over it, and, being well stirred about, to mix it with the pith, soon felt pulpy and soft. I then strained it with the assistance of another person, by twisting the cloth hard with our hands. After this we continued beating and straining the pith till we had got a large punch bowl full of the liquor, which was set by to settle till next morning. This liquor tasted much like new corn-water, for it was sweet, and thickened like light pap, but had a rawness in it. In the morning I poured off the water, which still retained its sweetness, but somewhat thinner in its consistence. In the bottom of the bowl I found a small quantity of an impalpable ash-coloured farina deposited; this I poured into two or three soap plates, and placed them in the sun for evaporation; which completed, I obtained half a pound of a fine impalpable ash-coloured farina or meal; a little of which being boiled, presently came to the consistence of pap or sago, with an agreeable taste. A few days after I went to see my much esteemed friend, Jasper Hall, Esq. who ordered another cabbage-tree to be cut down. The negro who felled it, after cutting it into junks and stripping the cortical part off, brought the pith home; which was white and fair like the last, but ponderous and sappy, and it appeared, by many circumstances, to come from a much smaller and younger tree. On seeing it, I concluded we should obtain a much greater quantity of sago than from the last; but in this I was mistaken. Here we had the advantage of a  
marble

marble mortar and pestle, with which we beat all the junks of pith out, having first cut it into small pieces, with knives, which we did as easily as if they had been turnips.— We squeezed this pith twice over, that we might obtain the more. We had much more liquor than the last, and it seemed to be very much thickened with sago, but it differed much in taste, being sourish like whey, without any of the sweetness of the last, and I thought it had a small touch of bitterish. This having stood all night, on being decanted or poured carefully off the next morning, yielded not one grain of farina. I ordered a little of the liquor to be boiled down, which upon tasting from time to time I perceived increase in bitterness, and therefore ordered the liquor to be thrown away. On my returning to Chiswic, I was told that the water remaining, after being poured off the sago, had been boiled, according to my directions, till, at last, it became black, bitter, and pitchy. We had another cabbage-tree cut down, which I found was sappy and heavy, and, by the size of the cabbage, judged it to be too young, but not so young as the last. The juice tasted sour like the last, and yielded next morning a trifling quantity of sago. At Longville park I tried the pith of the small thatch tree, which had a greater quantity of ligneous longitudinal fibres, and was of a brownish colour. This being put in a towel, and water poured thereon, the meal or farina, which was free and unconnected, presently passed through the strainer. This I gave not time to settle, but directed the water to be evaporated from it over a slow fire; but, in the end, it became bitter, black, and pitchy. Another cabbage-tree cut down, appeared to be pretty old, as I judged from the trunk. The fibres were reddish brown, and all ligneous, with very little soft pith, which seemed to be in grains. This was beaten well in a wooden mortar with a pestle of the same, and the liquor obtained from it was not ill-tasted, of a reddish hue, and, when strained and evaporated, produced a powder of the same colour. A little of this was boiled as sago with cinnamon, which, being sweetened, was very tasty, but had nothing of the viscous quality of the sago.— From the upper trunk of the same tree I found the pith very succulent; and the liquor obtained from it was very sweet, like that of young maiz, as the first; I know not what quantity of sago it yielded, nor what quality. Another cabbage-tree cut down seemed a very old one, being little short of one hundred feet in length. Four junks from the top were cut off; the uppermost containing the most pith, white, and very light, but the fibres ligneous: the other three junks continued to increase thence downward, increasing the rigidity of the fibres, but decreasing in quantity of pith. — The colour too receded from its whiteness to a reddish cast in fibres and pith.”

\*CACAO—See CHOCOLATE NUT.

\*CACCOS—See WATER LILY.

#### \*CACOONS, OR MAFOOTOO WYTHER.

#### MIMOSA,

CL. 23, OR. 1.—*Polygamia monoecia.* NAT. OR.—*Lomentaceæ.*

\*This was so named by Tournefort from *mimus mutabilis*, on account of the shifting or moving qualities of the leaves of many of the species.

GEN. CHAR.—Calyx a one-leaved perianth, five-toothed, very small; corolla one petal, funnel-form, half five-cleft, small; the stamens are capillary filaments, very long, with incumbent anthers; the pistil has an oblong germ; filiform style  
T shorter

shorter than the stamens; stigma truncated; the pericarp is a long legume, with several transverse partitions; seeds many, roundish, of various forms. OBS.—Many male flowers fall off, some are female others hermaphrodite in the different species of this genus, and no part of its fructification is constant.

SCANDENS. CLIMBING.

*Phaseolus maximus perennis*, folio decomposito, lobo maximo contorto. Sloane, v. 1, p. 178. *Gigalovium*. *Scandens claviculum*; foliis bipinnatis ovatis; siliqua maxima. Browne, p. 362.

Unarmed, leaves conjugate, terminated by a tendril; leaflets two-paired.

This is frequent in all the upland vallies and woodlands on the North side of Jamaica. It climbs up the tallest trees, and spreads itself in every direction by means of its *cirrho* or claspers, so as to form a complete arbour, and to cover the space of an English acre from one root. This circumstance has a bad effect on the trees or bushes so shaded.—Light, air, and rain (so necessary for all plants) being shut out, the leaves drop off, the tree gradually rots, and the limbs fall down by the weight of this parasite.

The roots of this plant run superficially under the ground or herbage. The trunk is seldom thicker than a man's thigh, and sends off many branches, with numerous shining green leaves, each of which terminates in a tendril or clasper, that serves to fasten it to trees or bushes. Pinnae four-paired, petioled, oblong, blunt at top, emarginate, nerved, smooth on both sides, shining. Tendrils long, upright, bifid at the end.—The flower spikes are from the axillæ: they are slender, and the florets on them small and numerous. Petals five, erect, oblong, green; filaments twenty to twenty-four, yellow, shorter than the corolla, and springing from its base; anthers globular. The pod is perhaps the largest and longest of any other in the world, being sometimes eight or nine feet in length, five inches broad, jointed, and containing ten or fifteen seeds. These seeds are brown, shining, flattened, very hard, and called *cacoons*. These are the same mentioned in the Philosophical Transactions, N° 222, p. 298, by Sir H. Sloane, as being thrown ashore on the Hebrides or Orkney's. This happens in the following manner: The seeds or beans fall into the rivers, and are conveyed to the sea. The trade winds carry them westward till they fall into the Gulf stream, which forces them northward along the coast of America and the Bahama islands. As the winds blow frequent and strong from America, these seeds are driven to the eastward, till at length they are thrown ashore and left with the tide as aforesaid.

This bean, after being long soaked in water, is boiled and eaten by some negroes; but in general there seems to be no other use made of it than as a sort of snuff box.

The following observations are from the manuscript of Mr. Anthony Robinson:—“ In August, near Liguanea barracks, I examined the male blossoms of this enormous climber with a microscope. The anthers were oblong and didymous, on the upper ends was placed one globose transparent gland; the base of the pedicels is glandulous; the gland of the common pedicel, arcuated; from each side of its base is produced a slender linear stipule embracing the stem; the base of the gland, after running half an inch up the stem, joins the gland that supports the peduncle. The peduncle is naked about one inch from the gland upwards; at the base of the spike are two or three small glands and smooth, terminating in a subulated stipule; and the spike itself is beset with a number of these stipules without glands. The leaves are bipinnated, consisting of two pairs of wings placed upon a common midrib, which terminates in two clavicles or

or tendrils. The first pair of the wings is the least, and consist of four pair of lobes, but the second or last are made up of five. The lobes upon the first pair are less than those placed upon the second. The lobes are of a lunated form; the first pair the least increasing to the last, which is the largest and about two inches long, their margins repandous, their extremities emarginated. One side of the leaf runs further downward than the other; the lobes are smooth, shining, and of an elegant lively green on the upper side, but of a whitish green below, and not shining. The middle rib is prominent on both sides, but somewhat more beneath; the side veins are delicate, parallel, and arched on the margins; they are produced in no certain order, by pairs, or alternate; the lobes have the same virtue of collapsing together on a change of the atmosphere as other plants of this kind."

See CASHAW—EAST INDIA EBONY—GUM ARABIC—INGA TREE—NEPHRITIC-TREE, POPONAX—SENSITIVE PLANT—WILD TAMARIND.

CALACICO—See SPURGES.

### CALABASH TREE.

### CRESCENTIA.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Putamineæ*.

This was named in honour of Pietro Crescentio, an Italian writer on agriculture.

GEN. CHAR.—Calyx a one-leafed perianth, two-parted, short, deciduous; divisions roundish, concave, obtuse, equal; corolla one-petalled, unequal; tube gibbous, crooked, torulose; border erect, five-cleft; divisions unequal, tooth-sinuated; the stamina are four filaments, subulate, length of the corolla, spreading, two a little shorter; anthers incumbent, obtuse, twin; the pistil has a pedicelled ovate germ; filiform style the length of the corolla; stigma headed; pericarp an oval, hard, one-celled berry; seeds very many, sub-cordate, nestling, two celled.—There are two species, both natives of Jamaica.

#### CUJETA.

*Arbor cucurbitifera americana, folio subrotundo*. Sloane, v. 2, p. 172.

*Arborescens; foliis confertis ob-ovato-oblongis, basi angustioribus; fructu sphaerico maximo*. Browne, p. 265.

Leaves wedge-lanceolate, crowded.

This tree is called *narrow-leaved calabash*, which seldom rises higher than twenty feet, and is easily distinguished from all others by its peculiar appearance. It divides at top into very long, thick, scarcely sub-divided branches, stretching out almost horizontally, adorned with leaves disposed in bundles or tufts scatteringly at irregular distances. The wood is light, tough, and pliant. The bark is unequal and ash-coloured or whitish. The leaves are uncertain in their number from the same knot or tubercle; they are oblong, attenuated at the base, on very short petioles, acute, entire, shining, veined, bright green, four or five inches long. Peduncles one-flowered, solitary, scattered over the older branches, and frequently on the trunk itself, three inches above the ground; flowers large, sometimes entirely green, but often differently variegated with purple, red, and yellow; it does not wither, but becomes putrid, and in that

state exhales a cadaverous, nauseous, and intolerable stench. It happens not uncommonly, that there are five fertile stamens, and in that case three of them are longer than the other two. The form of the fruit varies on different trees, being spherical, spheroidal, or shaped like a bottle; it differs also in size, from two inches to a foot in diameter. These, however, are only varieties. They are covered with a thin skin of a greenish yellow colour when ripe, and under this is a hard thin woody shell, inclosing a pale yellowish soft pulp, of a tart unsavoury flavour, surrounding a great number of flat seeds.

The wood of this tree being very tough and flexile, renders it very fit for the purposes of coach makers, as well as for making saddles, mule and ass crooks, stools, chairs, and other furniture, as also shafts or handles for carpenters tools. The shell of the fruit, when cleared of its contents, is frequently large enough to contain a gallon, and is used as bottles, or made into cups and spoons, by the negroes. It is of so close a texture, that it serves to boil water, and bears the fire as well as an earthen pot. It is frequently converted into button moulds. The fruit being split, roasted, and applied to an apostume speedily ripens it.

I suppose the Spaniards gave the name to this tree, its fruit being as big as a man's head (which they call *calabash*), but rounder; it is so well known in most parts of America, that it needs no description. I have seen such difference of the fruit of these trees as to contain from an ounce to a gallon. When they are green, they are full of white juice, pulp, and seeds, which the cattle eat of in very dry times; but which is said to give their flesh an odd disagreeable taste, and also their milk; but I believe that taste is from a weed called guinea-hen weed, and not from the calabash. It is said that the pulp, if eaten, will make a cow cast her calf, or a mare her colt. It is certainly known (if not too well known) to be a great forcer of the *menstrua*, and of the birth and after-birth; therefore ought to be very cautiously given or taken. I once made a spirit from this fruit, which was so nauseous as not to be taken alone. This is an useful tree for Indians and negroes to make necessary furniture for their houses, as dishes, cups, and spoons, of several shapes, bigness, and fashion; I have seen them made, and finely wrought and carved.—*Barham*, p. 27.

The juice of calabash, in the quantity of four ounces, is given as a purge in all cases where the patient has received a bruise about the trunk; and a syrup of the same, with the addition of lime-juice, a little nitre, and paragoric elixir, is by some highly extolled in coughs and consumptions. Small calabashes roasted, and the pulp spread on cloth, make a good poultice for bruises and inflammations.—*Wright*.

As a purgative, the dose is a quarter of a pint of the expressed juice. The pulp of the fruit made into syrup. Dr. M<sup>r</sup> Vicar Affleck relates some singular instances of its efficacy in pulmonary complaints, that were attended with hectic fever.\* *Jacquin says, E pulpa fructum syrupum conficiunt incolæ, summi medicaminis celebritate, potissimum in variis pectoris morbis, inq. contusionibus internis*—*Jacquin's Styrp. Americanæ*. The syrup is made by taking young calabashes about the size of an orange; roast them, then.

\* The following is one of the cases, as related by Dr. Affleck:—"A spoonful was given every morning to a lady labouring under a hectic fever, cough, and loss of appetite, which continued three months. She recovered in about four weeks, and lived in good health many years after. She was given over by an old lady, her mother, after many medicines had been used without effect."

then squeeze the juice from the guts through a coarse cloth ; to a pint of the juice add a pound of sugar and boil into a syrup.—A table spoonful or two to be taken two or three times a day, by itself, or in barley water.—*Dancer's Medical Assistant.*

2. CUCURBITINA. GOURD.

*Arborescens, foliis singularibus ovatis nitidis, fructu minori.* Browne, p. 266.

Leaves ovate, sub-coriaceous, distinct ; fruits ovate-acuminate.

The trunk of this tree is middle sized, unarmed, smooth, and even. The branches sub-divided, erect, not spreading, stiff and straight, angular, even ; leaves opposite, alternate, or scattered, never in tufts, broad, ovate, with a short point, quite entire, nerved, absolutely smooth, shining above, paler beneath ; petioles short, thick, smooth ; peduncles two to five, terminating, shorter than the leaves, longer than the petioles, one-flowered. Corollas nodding, the size of those of the *cufete*, but more dusky ; the base of the tube and throat is white, the belly red, the border pale, the segments dusky. The fruit is pedicelled, ovate-oblong with a short point, one-celled. It differs from the first species in its habit, the uprightness of its branches, its flat, oblong, shining, coriaceous leaves, terminating flowers on longer pedicels, corolla with the border entire, and ovate-acuminate fruit. It flowers the whole year. It is a native of Jamaica, in dry rocky places near the coast. The wood is hard and white, but the shell of the fruit so thin and brittle as to be unfit for the purposes of the former species. Both are easily propagated from the seeds.

CALALU, branched.

SOLANUM.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Luridæ.*

GEN. CHAR.—Calyx a one-leafed perianth, half five-cleft, erect, acute, permanent ; corolla one-petalled, wheel-shaped, tube very short, border large, half five-cleft, from reflex, flat, plaited ; stamina are five awl-shaped filaments, very small ; anthers oblong, converging, sub-coalescent, opening at the top by two pores ; the pistil has a roundish germ ; style filiform, longer than the stamens, stigma blunt ; the pericarp a roundish berry, smooth, dotted at the top, two-celled ; with a convex fleshy receptacle on each side ; seeds very many, roundish, nestling. Many species of this genus grow in this island.

NIGRUM. BLACK.

*Humilius diffusum ; foliis ovatis, ramulis marginatis, umbellulis floribus sparsis.* Browne, p. 174.

Branches angular, toothed ; leaves repand, smooth.

*Solanum bacciferum, seu officinarum.* This has a green stem, as big as ones little finger, rising two or three feet high, the branches spreading themselves on every side ; the leaves are about an inch and a half long, and half as broad in the middle, where it is broadest, standing upon a very short foot-stalk ; they are soft, of a dark-green colour, and jagged on the edges. Towards the tops of the bunches come the flowers, several together, upon a short foot-stalk ; each flower is made up with five white or pale-yellow leaves, with orange-colour apices, standing up in the middle of the flower, making

an *umbo*. After these follow round berries as big as English pease, smooth, and black when ripe, containing a thin greenish pulp, with a great many round flat white seeds. I was surprised to see the Angola negroes eat it as calalu, or as we do spinage, without any prejudice, being so like the deadly night-shade in Europe. The bark of this plant, bruised and put into water, intoxicates fish, so that they may be easily taken, but doth not kill them. The leaves are reckoned cooling, restringent, and anodyne; the juice, being put up the *anus*, eases pain and abates inflammation, and it doth so in *erysipelas*, or St. Anthony's fire; but it ought to be cautiously used, being very cooling and restringent, and therefore too repercussive or repelling. The juice I know to be good in cancerous tumours and inflammations, and the distilled water is good in fevers. The leaves, juice, or oil, applied to the head, is good in frenzies from heat, and for inflammations, and fissures or cracks of the nipples of the breast.—*Barham*, p. 117.

This plant is very common in the lowlands of Jamaica, and grows frequently in grass pieces, but seldom rises more than two or three feet. It is remarkable that this plant, which is equally common in Europe, and of a virose heavy smell, and very narcotic quality in cold climates, is void of both in Jamaica, where it is daily used for food, and found by long experience to be both a pleasant and wholesome green. The length of the common footstalks, and the length and smoothness of the branches, is the only difference between the two plants, if they be not wholly the same; but the European seems to grow more twiggy and luxuriant.—*Browne*.

This plant is commonly called *gooma* or *goomer* calalu, and grows very luxuriantly in new grounds. It has an agreeable bitter taste, and is much esteemed as a green, pot-herb, and purifier of the blood, and is gently aperient. It has no deleterious qualities like the European plant.

See CANKER BERRY—EGG PLANT—NIGHT-SHADES—POTATOES—TOMATOS—TURKEY BERRIES.

CALALU, MOUNTAIN—See POKEWEED.

CALALU, prickly.

AMARANTHUS.

CL. 20, OR. 5.—*Monoecia pentandria*. NAT. OR.—*Miscellanea*.

This generic name is derived from a Greek word for incorruptible, because the flower being cropped does not soon decay.

GEN. CHAR.—Male calyx a five or three-leaved perianth, upright, coloured, permanent, leaflets lanceolate-acute; no corolla but the calyx; stamens five or three capillary, the length of the calyx; with oblong versatile anthers: Female flowers in the same raceme with the males; calyx and corolla as in the male; the pistil has an ovate germ, three styles, short, subulate; stigmas simple, permanent; pericarp an ovate capsule, somewhat compressed, as is the calyx on which it is placed, coloured, and of the same size, three-beaked, one-celled, cut open transversely; seed single, globular, compressed, large. Three species are natives of Jamaica, the following and *polygonoides* or *goosefoot*.

1. SPINOSUL



## 1. SPINOSUS. PRICKLY.

*Blitum americanum spinosum*. Sloane, v. 1, p. 143. *Aculeatus rufescens, floribus confertis sessilibus, capitulis alaribus*. Browne, p. 341.

Racemes terminating, compound; axils thorny.

Sloane calls this the *red weed of Barbadoes*. It has an oblong deep reddish root, with some fibres, sending up a roundish red, strong, striated stalk, which has several branches of the same colour. The leaves come out along the branches without any order, of a reddish colour, having usually under them some sharp short prickles. The flowers come out in long spikes on the tops of the branches, of an herbaceous colour, after which follow small, black, shining, flat, seeds. It grows every where by the way sides in Jamaica.—Sloane.

This plant is frequently used as a vegetable, and is perfectly wholesome and agreeable.

## 2. VIRIDIS. GREEN.

*Blitum minus album polyspermon folio subrotundo*. Sloane, v. 1, p. 143, t. 92, f. 1.

Glomerules axillary, geminate; male flowers trifid; leaves ovate, emarginate; stem erect.

The root is large, strong, perpendicularly fixed in the earth, straight, reddish towards the top, and sending out round it several branches on every hand, often trailing on the ground, and very rarely erect, two or three feet long, striated, green, and succulent, along which come out several leaves on long petioles, bluntish, now and then covered with a brownish farina. The flowers are spike fashioned, very numerous along the branches, and greenish. To each flower follows a round seed, compressed, black, shining, and little, inclosed in a pale green membrane. It grows every where in the lowlands and plantations, and is to be gathered every where, very plentifully, after rain. When the leaves are stripped off and boiled as a sallet, it is one of the pleasantest I ever tasted, having something of a more fragrant and grateful taste than any of these herbs I ever knew. It is used in clysters in the belly-ache, as the best and most common emollient herb the country affords.—Sloane.

See GOOSE FOOT.

CALALU, SPANISH—See POKEWEED.

No English Name.

CALLICARPA.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Dumosa*.

GEN. CHAR.—Calyx a one-leafed, bell-form perianth, mouth four-cleft, erect; corolla monopetalous, tubular, border four-cleft, obtuse, spreading; stamens filiform, twice the length of the corolla; anthers ovate-incumbent; the pistil has a roundish germ; style filiform, thicker at top; stigma thickish, obtuse; pericarp a globular smooth berry; seeds four, oblong, shaped like a meniscus, compressed, callous. Swartz found two species of this genus in Jamaica.

I: FERRUGINEA.

## 1. FERRUGINEA. IRON.

Leaves broad lanceolate, serrate, somewhat rugged underneath; cymes terminating and axillary.—*Sw. Pr.* p. 31.

## 2. RETICULATA. NETTED.

Leaves elliptic lanceolate, sub-serrate, wrinkled; tomentose hoary underneath.

## CALTROPS.

## TRIBULUS.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Gruinales.*

This is so named from having three spikes to the fruit.

GEN. CHAR.—Calyx a five-parted acute perianth, a little shorter than the corolla; corolla five-petalled, oblong-obtuse, spreading; the stamina are awl-shaped filaments, small, with simple anthers; the pistil has an oblong germ, length of the stamens, no style, stigma headed; pericarp roundish, prickly, of five to ten capsules, gibbous on one side, often armed with three or four dagger points, angular on the other, converging, with transverse cells; seeds many, turbinate, oblong.

## MAXIMUS. GREAT.

*Tribulus terrestris major, flore maximo odorato.* Sloane, v. 1, p. 209, t. 132, f. 1. *Folii senis pinnatis, extimis majoribus, floribus singularibus.* Browne, p. 220, t. 21, f. 3.

Leaves about four paired; outer leaflets longer; pericarps ten-seeded, awnless.

This has pretty thick, compressed, channelled, succulent, brittle, stalks, which trail upon the ground, near two feet long, shooting on every side from the top of the root as from a centre: the leaves pinnate, opposite, commonly three or four pairs of smooth sessile leaflets, the furthestmost pair the largest. The flowers come out towards the ends of the branches, of a pale orange or yellow colour, having an agreeable odour, and are succeeded by roundish prickly fruit, ending in a long point. It grows in all pastures of Jamaica, and is frequently gathered with other fodder plants, and fed upon indiscriminately by all sorts of cattle. Sloane says a salve made of this herb with suet, is good for the ringworm.

See TURKEY BLOSSOM.

## CAMPHIRE TREE.

## LAURUS.

CL. 9, OR. 1.—*Enneandria monogynia.* NAT. OR.—*Heloraceae.*

GEN. CHAR.—See Avocado pear, p. 37.

## CAMPHORA. CAMPHIRE.

Leaves triple nerved, lanceolate-ovate.

The camphire tree is very near akin to the cinnamon tree, from which it differs in the leaves; those of the latter having three ribs running longitudinally from the foot-stalk

stalk to the point, where they soon diminish ; whereas in this the ribs are small, and extend towards the sides ; the surface is smooth and shining. There are males and hermaphrodites on different trees.

The root is large, thick, and brachiated ; the trunk often three feet in diameter ; the tree is very ramose, its bark greyish, and rough on the trunk, but green on the young branches. The wood is white, but becomes reddish in drying. The leaves stand irregularly, and resemble those of the bay-tree. They are three inches long and half as broad, somewhat curled about the edges, and terminate in a long narrow point ; they are of a bright green above and greyish below. The flowers are very small and white ; they stand in clusters on the tops of ramose pedicels, rising from the axæ of the leaves ; the fruit is a black shining berry.

This tree is mentioned in the Hortus Eastensis as having been introduced into this island by Dr. Clarke, in the year 1775, and has since been successfully cultivated in several parts of the island. It no doubt would be a valuable acquisition if generally planted. The Chinese call it *tchang*, and, to obtain the camphire, they take the fresh branches, chop them very small, and lay them to steep in spring water for three days and three nights. After they have been soaked in this manner they are put into a kettle, where they are boiled for a certain time, during which they keep continually stirring them with a stick made of willow. When they perceive that the sap of these small chips adheres sufficiently to the stick in the form of a white frost, they strain the whole, throwing away the dregs. This juice is afterwards poured gently into a new earthen bason, well varnished, in which it is suffered to remain one night. Next morning it is found coagulated, and formed into a solid mass. To purify this first preparation, they procure some earth from an old earthen wall, which, when pounded and reduced to a very fine powder, they put into the bottom of a bason made of red copper ; over this layer of earth they spread a layer of camphire, and continue thus until there are four strata. The last, which is of very fine earth, they cover up with the leaves of the plant *po-ho*, or *penny-royal* ; and over the whole they place another bason, joining it very closely to the former by means of a kind of red earth that cements their brims together. The bason, thus prepared, is put over a fire, which must be managed so as to keep up an equal heat ; experience teaches them to observe the proper degree ; but above all they must be very attentive lest the plaister of fat earth, which keeps the basons together, should crack or fall off ; otherwise the spirituous parts would evaporate and ruin the whole process. When the basons have been exposed to the necessary heat, they are taken off and left to cool ; after which they are separated, and the sublimated camphire is found adhering to the cover. If this operation be repeated two or three times, the camphire is found purer and in larger pieces. Whenever it is necessary to use any quantity of this substance, it is put between two earthen vessels, the edges of which are surrounded with several bands of wet paper. These vessels are kept for about an hour over an equal and moderate fire ; and, when they are cool, the camphire is found in its utmost perfection and ready for use. This method of procuring camphire, even from the heart of the tree, may be practised in all seasons of the year ; which would not be the case were it extracted like other resinous substances that only flow during a certain short space of time. Besides, by lopping the branches of the camphire tree, less hurt is done to it than by making incisions, which are always hazardous. The Abbe Grosier, from whom the foregoing account is taken, informs us, that in China some of these trees are found above one hundred cubits in height, and so thick that twenty per-

sons cannot inclose them. The trunk, when old, emits sparks of fire, but of so subtle a nature as not even to injure the hair of those who are near it.

Pure camphire is very white, pellucid, somewhat unctuous to the touch; of a bitterish, aromatic taste, yet accompanied with a sense of coolness; of a very fragrant smell, somewhat like that of rosemary, but much stronger. It has been very long esteemed one of the most efficacious diaphoretics; and has been celebrated in fevers, malignant and epidemical distempers. In deliria, also, where opiates could not procure sleep, but rather aggravated the symptoms, this medicine has been often observed to procure it. All these effects, however, Dr. Cullen attributes to its sedative property, and denies that camphire has any other medicinal virtues than those of an antispasmodic and sedative. He allows it to be very powerful, and capable of doing much good or much harm. From experiments made on different brute creatures, camphire appears to be poisonous to every one of them. In some it produced sleep, followed by death, without any other symptom. In others, before death, they were awakened into convulsions and rage. It seems, too, to act chiefly on the stomach; for an entire piece swallowed, produced the above-mentioned effects with very little diminution of weight. See AVOGADO PEAR—BAY TREES—BENJAMIN—CINNAMON—COGWOOD—SASSAFRAS.

## CANDLE OR ROSE WOOD.

## AMYRIS.

CL. 8, OR. 1.—*Octandria monogynia.* NAT. OR.—*Tercbinthaceæ.*

This name is derived from a Greek word signifying ointment or balm.

GEN. CHAR.—Calyx a one-leaved perianth, four-toothed, acute, erect, small, permanent; corolla four oblong, concave, spreading petals; stamens awl-shaped, erect filaments; anthers-oblong, erect, the length of the corolla; the pistil has a superior ovate germ, a thickish style the length of the stamens, and four-cornered stigmas; the pericarp a drupaceous roundish berry; seed a round shining nut.—Several species are natives of Jamaica.

1. BALSAMIFERA: BALSAMIC.

*Arboreus, foliis bijugatis ovatis glabris, racemis laxis terminalibus.*  
Browne, p. 208.

Leaves two-paired:

This tree grows frequently among the gravelly hills in this island, and rises to a considerable height. The trunks are remarkable for having large protuberances on them. The leaves are laurel shaped. The flowers are small and white, in branched spikes.—The fruit is described as follows in A. Robinson's manuscript: The full grown ripe fruit is of a black smooth and shining hue, or rather of a very deep purple, about three-quarters of an inch long, and when green marked with many deep specks, like a green lime or lemon, which are small cells replete with a most fragrant essential oil or balsam. The ripe fruit consists of numerous green globules or vesicles, not unlike in form and make to fish spawn, replete with, and immersed in, a juice sweetish and aromatic.—The shell of the nut is purple, brittle, externally rugged, having a bilobous kernel, covered with a thin moist skin of a very deep purple. The nut is turbinate at both ends, the kernel highly aromatic. This tree is known also by the name of *shrubby sweetwood*.

*Sweetwood.* By subjecting the wood to distillation, Dr. Wright thinks a perfume equal to oil of rhodium may be obtained. It is called *white candlewood*, because it burns so freely as frequently to be used for that purpose by the negroes.

This tree is found in the woods of St. Ann's, and those back of Bull Bay in the parish of Port Royal; it grows to a considerable size, and is considered as one of the most valuable timber trees in the island. The wood is white, and of a curled grain when young, but grows of a dirty ash-colour by age: it bears a fine polish and has a fine smell. The young trees are frequently cut for firewood in the mountains; they are full of resin, burn very freely, and with a most agreeable smell. The wood is heavy and in great vogue among cabinet makers. All the parts of this tree are full of warm aromatic particles, and may be used in baths and fomentations upon occasion.—*Browne, p. 208.*

*Sweetwood*, or *shrubby sweetwood*, or *rosewood*. Professor Linnæus, having obtained a specimen of the balsam of mecca tree, was of opinion, that it was a species of this genus. Mr. Robinson, pursuing this hint, found three species, differing only from each other in the size of the trees, dimensions of their leaf, and greater or less aroma of their bark and wood.

They grow in great abundance on the rocky hills of the south side coast, and other parts more inland; and are remarkably frequent in Healthshire, in St. Catherine.

Their leaves and bark are impregnated with a fine balsamic juice, and, if the body was tapped at the proper season of the year (supposed to be August), might be found to transude a thick liquor resembling that of the Gilead balsam, to which the taste of this bark, and wood of the smaller branches, bears a very exact relation.

The leaves, infused in boiling water, after the manner of tea, have a very pleasant flavour, and odoriferous scent, and may be drank with milk and sugar, instead of tea. This infusion is highly cephalic, strengthens the nerves, and is particularly restorative to weak eyes; insomuch, that I knew a gentleman, who, by the constant use of it for some weeks, by way of breakfast, was able to read a small print, and view objects distinctly, without the assistance of spectacles, which he had been unable to do for some years before.

The leaves, dried thoroughly in the shade, might be very securely packed, and exported, for farther trial of their virtues, which, in Jamaica, did not seem to be impaired by their dryness, or length of keeping.

There is then the strongest reason to believe, that the *amyris* may, by incision, produce a balsam not much inferior to the celebrated balm of gilead, or *opobalsamum*; which, for better information of the inquisitive reader, I shall here describe, from competent authority. It is a liquid resin, of a very light yellowish colour, and a fragrant smell, not unlike that of citrons; but the taste is acrid and aromatic. It is pellucid, tenacious, or glutinous, sticking to the fingers, and may be drawn into long threads. It scarcely ever becomes fluid or liquid, by the heat of the sun, in the westerly part of Asian Turkey, where it is produced.

Its virtues are said to be these: It is one of the best stomachics known, if taken to three grains, to strengthen a weak stomach. It is a capital vulnerary; for, if applied to a fresh wound, it cures it in a very short time. When fresh, it is said to have a much greater efficacy, than when old. It is given internally against putrefaction of the viscera, and abscesses of the lungs, liver, and kidneys. It also cleanses foul ulcers, and

heals them very soon.\* But it is difficult to obtain it unsophisticated; for which and other reasons, it well deserves the experiment of ingenious gentlemen in this island, to find if a balsam or resin be obtainable from the *amyris*; since the discovery would naturally lead to form such a substitute for the true balsam, which is so seldom to be got in its genuine state; and there seems no weak ground for presuming that this substitute would answer similar good purposes in medicine —Long.

This species is supposed to be the wood noticed by Barham, under the name *tree rosemary*, as follows:—"This I happened to meet with by chance. Pulling down some old houses, I smelt a very strong smell of rosemary, which made me enquire into the reason of it. They told me, that there was some rosemary-wood among the timber of the houses. I then desired they would get me some of it, which they did; I found it was only the bark that smelt, which no rosemary exceeded. Some will have it to be a sort of clove-bark tree, which grows in great plenty upon the main continent. I first found this tree on Bachelor's plantation, which was afterwards mine, and is now well known to all or most planters in Jamaica. I carried some of the bark with me to England in the year 1717, which kept its scent very well; and I question not but it would be found, upon experience, to be very useful to distillers, and of many medicinal uses." —Barham, p. 195.

## 2. MARITIMA. MARITIME.

*Baccifera trifolia racemosa, flosculis albis tetrapetalis, fructu nigro-monopyreno foetido.* Sloane, v. 2, p. 101. *Fruticosus minor, foliis orbiculatis venosis, pinnate ternatis racemis terminatricibus.* —Browne, p. 209.

Leaves ternate, crenulate, obtuse.

This tree, which is called *yellow candlewood*, *rose wood*, and *yellow sanders*, appears not specifically different from the foregoing, for the leaves are pinnated, have two pair of ovate lobes, terminating in an odd one, and frequently seen pinnate ternate, as the first. These leaves are much longer and of a deeper green. It has not the fragrant smell or taste of the other. The fruit is oblong, the wood of a box colour, elegantly clouded and takes a fine polish.

It is common on the banks of the Río Cobre. The calyx is permanent, fruit black and shining. The blossom is white, four times the length of the cup, and the fruit has an agreeable aromatic taste; the flower pedicels are black, shining, speckled, as are the joints of the leaves. There is one seed. It blossoms in June and July.

The blossoms of a tree examined were very small; the pericarp monophyllous, bell-shaped, permanent, and cut half way down into four equal erect segments; at the base of each proper peduncle were placed two very minute lanceolated stipules in opposition: the corolla consists of four oblong obtuse, pointed petals, nearly obversely ovate, patent, white, and thickly marked with pellucid balsamic cells, much longer than the calyx, and placed alternate with its laciniae. The stamens are eight subulated patent filaments.

\* It is generally believed that the *Canada* and *copaiva* balsams, will answer every purpose of the *balm of gilead*. — Dr. Alston says, that the surest mark of this balsam being pure and unadulterated is its spreading quickly on the surface of water when dropped into it; and that if a single drop of it is let fall into a large saucer full of water, it immediately spreads all over its surface, and as it were dissolves and disappears; but in about half an hour it becomes transparent pellicle, covering the whole surface, and may be taken up with a pin, having lost all its fluidity and colour, and become white and soft, cohering, and communicating its smell and taste to the water. This test, he says, all the balsam he saw in Holland bore, but not that in London, where it is rare to procure it unadulterated.

filaments, alternately shorter, and shorter than the petals: anthers ovate, didymous, and erect. There is a scarlet glandulous receptacle, perhaps the nectarium, of a tetragonal form, placed in the centre of the cup, which supports an oblong germen: the style is simple, short, and thick; the stigma capitated. The stem terminates in a branched panicle, and, from the bosoms of the first pair of leaves beneath, arise from one to four in number on each side.

The *smaller shrubby sweetwood* is a little plant very common in the hills about the Ferry; it grows chiefly among the rocks, and seldom rises above four or five feet in height, or exceeds an inch and a half in diameter. The leaves are very round, and distant from one another; the flowers small, and disposed in loose bunches at the tops of the branches. The leaves and outward parts of this shrub have no remarkable warmth, nor does the trunk burn with that fragrance, though it contains a great quantity of the like aromatic particles with the former.—*Browne.*

The *maritima* is described as follows by Swartz: Stem branched; scabrous, ash-coloured; leaves petioled, ternate; leaflets petioled, roundish, elliptic, with a short point, sometimes obtuse, crenate, spreading, nerved, smooth on both sides, perforated, with pellucid dots; petioles and petiolules round; racemes compound, in cymes, with opposite many flowered branchlets; flowers crowded, white, very sweet; petals ovate, entire, with short claws; berry the size of a black pepper, black when ripe; inclosing a globular brittle nut, in which is a white kernel. Swartz doubts if this species be distinct from the following, which differs according to soil and situation in the size of all the parts. They grow, he says, in very barren coppices, in a calcareous rocky soil, both near the sea and in the interior mountains of Jamaica, Hispaniola, and Cuba; flowering from June to September.

### 3. SYLVATICA. WOOD.

Leaves ternate, crenate, acute.

This is described as an erect lofty shrub, branching but little; from two to fifteen feet high according to soil and situation. The whole abounding in turpentine of a disagreeable smell. The small branches round, leafy to the ends; leaflets shining, finely notched, of different shapes. Racemes panicled, erect, terminal, and axillary, sustaining many small snow-white flowers. The drupe the size of a pea.

The following are the three species of this genus alluded to by Mr. Long, as discovered by Mr. Anthony Robinson, and as described in his manuscript:—

“1. *Amyris foliis ternatis pinnatis pediculis marginatis racemis alaribus.*—This is a small tree about fourteen or fifteen feet high, the bark of the trunk and branches is naturally of a reddish brown, but appears variously coloured by reason of many lichens growing on it. The trunk is about six inches diameter, dividing a little way from the ground into many branches, growing into a close compact ovate form, with numerous erect slender twigs. The blossoms small and white, proceed in small clusters from the axils of the leaves.

“2. *Amyris hypelate.*—The cup or calyx was composed of five concave leaves, which were roundish, unequal in breadth, and ciliated on their edges: corolla had four petals, also roundish and unequal, and bigger than the cup; there appeared a vacant interspace as if a fifth petal was wanting; the germ was small, trigonal, and placed upon

upon eight nectareous glands, which adhered together as in the melicoccus. From the margin of each gland arose short filaments; the style was simple, crenated like that of the *wild genip*, or *melicocca*; the stigma was capitated. On a section of the germ there appeared three cells, containing divers seeds; the anthers were cordated and erect; the filaments much shorter than the petals.

"3. *Amyris Philippæa*.—The leaves grew toward the end of the branches alternate. The pedicel was about an inch and a quarter in length, decorated on each side by a very narrow foliaceous margin, which supported one pair of ob-ovate lobes, with an odd one at the end, sessile, ternate as it were, or placed close to one another, of a lively green, and elegantly decorated with slender oblique veins, rising from the middle, shining, smooth, and of a firm texture, not unlike those of *guaiacum*. The bark is bitter, aromatic, and balsamic. The whole trunk is very full of shallow pits or depressions, which are caused by the falling off of many thin small squammæ or scales, with which the old bark is covered. It affects a dry rocky soil, and is one of the most elegant trees in Jamaica".

See XIMENIA.

#### CANDLEBERRY MYRTLE.

#### MYRICA.

CL. 22, OR. 4.—*Dioecia tetrandria*. NAT. OR.—*Amentaceæ*.

GEN. CHAR.—Male ament ovate-oblong, imbricate on all sides, loose, composed of one-flowered, crescent-shaped, bluntly acuminate, concave scales; there is no proper perianth nor corolla; stamens four filaments (seldom six) filiform, short, erect; anthers large, twin, with bifid lobes. Female calyx as in the male, no corolla; the pistil has a sub-ovate germen; two filiform styles, longer than the calyx; stigmas simple; the pericarp is a one-celled berry; seed single.

CERIFERA. WAX-BEARING.

Leaves lanceolate, sub-serrate; stem arborescent.

This is the common or *narrow-leaved candleberry myrtle* of America, which Swartz discovered in Jamaica; it rises to the height of thirty feet. The bark is warted; the branches unequal and straight. Leaves evergreen, somewhat clustered, blunt at the end, membranaceous, rigid, wrinkled, smooth, covered underneath with very minute shining, orange coloured glandular pores; flowers in aments in different individuals. Swartz had no opportunity of observing the male aments. Miller says they are about an inch long, and stand erect. The female aments are sessile, axillary, linear, shorter than the leaves; scales very minute, and between each of them an oblong minute germ, longer than the scales; two filiform styles, the length of the germ, and reflex stigmas; berry minute, roundish, yellow. The leaves and bark bruised are said to diffuse a very agreeable fragrance. In America a wax is collected from the berries of which they make candles; whence the tree derives its name. This wax is procured by boiling the ripe berries in water until the oil floats, when it is skimmed off, and the skimming repeated until the oil disappears. When cold this hardens to the consistence of wax, and is of a dirty green colour. It is then boiled again and clarified, which gives it a transparent greenness. The candles made of it yield a grateful smell. A fourth part of tallow is usually added, which makes them burn clearer. A soap is also made from



the oil, which having an agreeable scent is excellent for shaving, and it is used in plasters. In Carolina they make sealing wax from these berries; and the root is accounted a specific in the tooth-ache. It is propagated from seeds.

CANDLEWOOD—See ROSEWOOD.

CANE, SUGAR—See SUGAR CANE.

CANE, WILD—See BAMBOO and REEDS.

CANELLA—See CINNAMON, WILD.

### CANE-PIECE SENSITIVE PLANT.

### CASSIA.

CL. 10, OR. 1.—*Decandria monogynia*. NAT. OR.—*Lomentaceæ*.

GEN. CHAR.—Calyx a pentaphyllous perianth, lax, concave, coloured, deciduous; corolla five petals, roundish, concave; the inferior ones more distant, more spreading, larger; stamens are ten filaments, declined; the three inferior ones longer; the three superior shorter; anthers, the three inferior very large, arcuate, rostrate, gaping at the tip; the four lateral ones without the rostrum, gaping; the three superior ones very small, sterile; the pistil has a sub-columnar germen, long, peduncled; style very short; stigma obtuse, ascending; the pericarp is an oblong legumen, with transverse partitions; seeds many, roundish, affixed to the superior suture. There are several species natives of Jamaica.

#### CHAMÆCRISTA.

*Senna occidentalis*, *siliqua multiplici foliis herba mimosa*. Sloane, v. 2, p. 51. *Suffruticosa erecta, foliis linearibus plurimus pinnatis; floribus singularibus vel geminatis, sparsis*. Browne, p. 225.

Leaflets many pairs; a petiolar pedicelled gland; stipules ensiform.

This has an herbaceous stem, a foot high or more, diffused, smooth, round, with hirsute branches; leaves pinnate, with twenty-four or twenty-five pairs of leaflets; common petioles round, hirsute, thicker at the base; leaflets on very short petiolets, opposite, lanceolate, rounded at the base, oblique, blunt at the end, and terminated by a very small bristle, nerved, smooth. Glands beneath the lowest pair of leaflets, pedicelled, capitate, truncate, turbinate at the tip. Stipules lanceolate, acuminate, opposite, at the base of the petioles, half clasping, smooth, but pubescent at the edge. Flowers among the stipules above the petiole, and not axillary; on very short, solitary, three-flowered pedicels; corollas small, yellow, with two minute opposite bracts on the pedicels. Calycine leaflets linear, equal, acute, reflex, pubescent; petals unequal; the two upper ones smaller, with a dusky spot; the other three larger, having claws, roundish, concave, waved about the edge. Filaments unequal, the seven hinder ones smaller, the three forward ones longer; anthers linear, angular, bearing pollen at the tip; germ oblong, white, very hirsute; style recurved, thick; stigma blunt; legume compressed. It grows in dry pastures and among cane-pieces.

This is frequently met in cane-piece intervals. It is about three feet in height; and has a few branches, with numerous small pinnated leaves, which collapse immediately on being touched. The blossoms are yellow. The capsule is a flat pod, about an inch long.

long, black, jointed, and somewhat hairy. The roots are woody, with many fibres — The decoction of the roots is said to be an antidote to poisonous plants. A handful of the washed roots being boiled in water from three pints to two, may be strained, sweetened, and used for common drink, at the rate of three quarts in twenty-four hours.—*Wright.*

*See* CASSIA-STICK-TREE—HORSE CASSIA—RINGWORM BUSH—SENNA TREES—STINKING WEED—WILD INDIGO.

## CANKER BERRY.

## SOLANUM.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Lurida.*

GEN. CHAR.—*See* Calalu, branched, p. 141.

BAHAMENSE. BAHAMA.

*Solanum bacoiferum fruticosum, stipitibus et foliis majoribus, spinis ferocioribus armatis.* Sloane, v. 1, p. 38, t. 11, f. 3. *Erectum, caule tereti-aculeatissimo, foliis oblongis ad basim inæqualiter porrectis.* Browne, p. 174.

Stem prickly, shrubby; leaves lanceolate, repand, obtuse, bent back at the edge; racemes simple.

This rises with shrubby stalks three or four feet high, dividing into several irregular branches, which have a grey bark, and are armed on every side with red, sharp, thick set prickles, which are also on the backside of the middle rib of the leaves. The leaves are an inch and a half long, and half an inch broad, smooth. The flowers in long bunches from the side of the stalk, upon long peduncles of a fine blue colour. The berries are saffron coloured, the size of peas. They are bitterish, and thought to be serviceable in sore throats.

*See* CALALU, branched—EGG PLANT—NIGHTSHADES—POTATOES—TOMATO BERRIES—  
—TURKEY BERRIES.

CAPSICUMS—*See* GUINEA PEPPER.

## CARDINAL FLOWER.

## LOBELIA.

CL. 19, OR. 6.—*Syngenesia monogamia.* NAT. OR.—*Campanaceæ:*

This is named in honour of Matthias de Lobel, a Flemish botanist, and physician to King James I.

GEN. CHAR.—Calyx a one-leaved perianth, five-cleft, very small; growing round the germ, withering; toothlets nearly equal; the two superior ones looking more upward; corolla one-petalled, irregular; tube cylindric; border five-parted, divisions lanceolate, the two superior smaller; the three inferior more spreading; stamens awl-shaped, connate above; anthers connate into an oblong cylinder, gaping five ways at the base; pistil has a sharp pointed inferior germ; style cylindric.

Andrie, length of stamens; stigma obtuse, hispid; the pericarp is an ovate capsule, two or three celled, two or three valved, gaping at the top, girt by the calyx; dissepiments contrary to the valves; seeds a great many, very small; receptacle conic. Three species are natives of Jamaica.

1. LONGIFLORA. LONG-FLOWERED.

*Rapunculus aquaticus, foliis cichorii, flore albo, tubulo longissimo.*—  
Sloane, v. 1, p. 158, t. 101, f. 2. *Foliis lanceolatis, dentatis; pedunculis brevissimis, lateralibus; tubo floris tenui longissimo.*—  
Browne, p. 322.

Leaves lanceolate, toothed; peduncles very short, lateral; tube of the corolla filiform, very long.

This plant is frequent in Jamaica near rivers and in moist cool shady places, growing from fourteen to sixteen inches in height. It has a deep thick root. The stem grows almost upright, and much branched from the axils; leaves alternate, sessile, sub-pinnatifid-toothed, broadest at the further end, half a foot long, rough, of a whitish green colour. Peduncles one-flowered, bracteawl-shaped, calyx truncated, with five distant tooth-letted teeth. The corolla handsome, upright, white, with a very long tube, and equal border. Capsule green, when it bursts at the ripening of the seeds. The whole plant contains a milky acrid juice, and is very poisonous. Taken internally it is said to bring on an invincible purging; and if even handled, and the hand be unawares applied to the eyes or lips, it will bring on an inflammation. The root has a very pungent disagreeable taste, quickly spreading from the tongue to the throat, and not easily got rid off. Horses are reported to burst with eating it, whence, in the Spanish West Indies, it has the name of *reventu-cavallos*.

2. ASSURGENS. RISING.

*Major brachiata, assurgens; foliis oblongo ovatis, denticulatis, basi appendiculatis, utrinque productis; spicis terminalibus.* Browne, p. 322.

Leaves broad-lanceolate, serrate; tooth-letted and decurrent below; racemes compound, terminating.

Root perennial. Stem herbaceous, three or four feet high, simple, or only simply divided at top, angular, thick, smooth, red, milky. Leaves sub-sessile, or on very short petioles, ovate-lanceolate, a foot long, alternate, nerved, smooth on both sides; toothlets at the base of the leaf linear; petioles very short, decurrent at the sides, whence the stem is winged, continued under the leaf to the tip, thick, red; raceme almost upright, curved. Flowers numerous, heaped, blood-red, very large, pubescent, on round peduncles, an inch in length, with linear bractes at their base; calyx superior, with five long lanceolate, reflex, serrate teeth; corolla nerved inwards; the anther has five blue grooves; germ inferior, angular, surrounded by the calyx; style thick; stigma inclosed within the anther, capitate-compressed, white, villose; capsule angular, two-celled, crowned by the calyx.—Sw. Browne says this is found chiefly in the cooler mountains, where it shoots frequently to the height of five or six feet.

3. ACUMINATA. POINTED.

*Rapunculus folio oblongo, serrato, flore galeato, integra, pallide luteo.*  
X Sloane,

Sloane, v. 1, p. 158, t. 95, f. 2. *Folii oblongis, angustis, leviter et acute serratis; caule simplicia. inferne foliolato, superne in spicam longam desinunt.* Browne, p. 322.

Stem upright; suffruticose; leaves lanceolate, attenuated, serrulate; racemo-terminating, many flowered.

This has a stalk as big as ones finger, rises three feet high, being green and smooth, and having very many leaves set on it, without any order, each of which is ten inches long, and two broad in the middle, of a dark green colour, and indented about the edges. At the top are a great many flowers, of a pale yellow colour, and galeated, having a long galea turned up, and some stamens coming out of the middle of the flower. The seeds are very small, and scarce discernable, brown, and contained in several cells, in one capsule, surrounded with four foliola.—*Sloane.*

#### 4. SIPHILITICA. SIBHILITIC.

Stem upright; leaves ovate-lanceolate, sub-serrate; sinuses of the calyx reflex.

This is called the *blue cardinal flower* from the colour of its flower; it is a native of Virginia, and has been introduced. Its root is noted for its efficacy in curing siphilis, whence the specific name. A decoction is made of a handful of the roots in three measures of water, and half a measure taken in the morning fasting, and repeated in the evening: the dose is gradually increased till its purgative effects become too violent, when it is to be intermitted for a day or two, and then renewed till a perfect cure is effected. During its use a proper regimen is enjoined, and the ulcers to be frequently washed with the decoction; or if deep and foul, to be sprinkled with the powder of the inner bark of New Jersey tea tree.

#### CARDOON.

#### CYNARA.

CL. 19, OR. 1.—*Syngenesia polygamia equalis.* NAT. OR.—*Composite.*

GEN. CHAR.—*See Artichoke, p. 34.*

#### CARDUNCULUS.

Leaves spiny, all pinnatifid; calycine scales ovate.

The *cardunculus*, or *Spanish cardoon*, greatly resembles the artichoke, but is of larger, and more regular growth; the leaves being more upright, taller, and broader, and more regularly divided; and the stalks of the leaves blanched are the only eatable parts of the plant. It is a very hardy plant, and propagated in the same manner as the artichoke. When their footstalks have acquired a thick substance, the leaves of each plant must be tied up to admit of earthing them closely all round for blanching, which will take up six or eight weeks. Browne observes that this plant was introduced into this island by Mr. Wallen, and raised in many gardens, both in the lowlands and in the mountains.

In some parts of Spain they substitute the down of this plant for rennet, in making cheese. A strong infusion is made over night; and the next morning, when the milk

is warm from the cow, they put nearly half a pint of the infusion to about fourteen gallons of milk.

See ARTICHOKE.

CARDUUS—See BLESSED THISTLE.

CAREX—See SEDGES.

### CARROT.

### DAUCUS.

CL. 5, OR. 2.—*Pentandria digynia*.

NAT. OR.—*Umbellata*.

GEN. CHAR.—Calyx umbel, universal; corolla universal, difform, somewhat rayed, all hermaphrodite; floscules of the disk abortive; stamina capillary; anthers simple; the pistil has an inferior small germ, two reflex styles, with obtuse stigmas; there is no pericarp; fruit ovate, often hisped on every side, with stiff hairs, bipartite; seeds two, somewhat ovate, on one side convex, hisped, on the other flat.

CAROTA. CARROT.

Seeds hisped; petioles nerved underneath.

There are several varieties, the white, the orange, and the purple carrot; the orange is the best, and thrives extremely well in Jamaica, where it is often found of as large a size as need be; as large indeed as they grow in England.

They are propagated by seeds, but the imported seeds, when good, are certainly preferable. The carrots produced from the Jamaica seeds are smaller, of a paler colour, and degenerate in proportion as they are removed from the original stock, so that, in time, without a fresh supply of seed, they would be entirely lost, or so indifferent as not to be worth cultivating. They delight in a loose soil, and the beds where they are sowed should be well dug, that the roots may meet as little obstruction as possible in going down, so as to fork them. Too much dung occasions them to be worm-eaten. The hairiness of the seeds makes the sowing them difficult, as they stick together; but when sown they should be trod in with the feet, and the ground raked level over them.

Raw carrots are given in England to children troubled with worms. They pass through most people, but little changed. A poultice made of the roots hath been found to mitigate the pain and abate the stench of cancerous ulcers. Crickets are very fond of carrots, and are easily destroyed by making a paste of powdered arsenic, wheat-meal, and scraped carrots, which must be placed near their habitations. By their strong antiseptic qualities, a marmalade made from carrots has also been found useful in preventing and curing the sea scurvy. The seeds have been reckoned carminative and diuretic; and were formerly much used as a remedy for the stone, but are at present disregarded. Carrots were first introduced into England by the Flemings, in the reign of Queen Elizabeth.

### CASHAW.

### MIMOSA.

CL. 3, OR. 1.—*Polygamia monoecia*.

NAT. OR.—*Lomentacea*.

X 2

GEN.

GEN. CHAR.—See Cacaoon, p. 137. There are two species of the *mimosa*, known by the name of *cashaw*.

1. TORTUOSA. WRITHED.

*Acacia americana, siliquis teretibus ventriosis, floribus luteis.* Sloane, v. 2, p. 56. *Tortuosa, aculeis rectis geminatis, foliis tenuissimis, spica globosa, siliquis crassis.* Browne, p. 251.

Spines stipulary; leaves bipinnate, four-paired, a gland between the lowest; pinnae sixteen-paired; spikes globular.

This tree has a branching stem; the branches diffused, sub-divided, flexuose, smoothish, spiny, with a brown bark; spines in pairs, almost united at the base, stretched out, half an inch long; leaves three or four from one point, alternate; partial ones two or three paired; pinnae twelve to sixteen, lanceolate, bluntish, entire, smooth. Universal petioles, round, filiform, reddish; partial petioles angular.—Glands solitary, brown, in the middle of the universal petioles, below the leaflets; flowers peduncled, in heads, yellow; peduncles solitary, above the spines, among the leaves, half an inch in length, bent down. Filaments monodelphous, twenty or twenty-four, upright, yellow; germ ovate, minute; legume horned, roundish, torulose, drawn to a point at both ends, beaked, black; seeds ob-ovate, black, compressed a little. Between the outer coat of the pod, and the inner membrane separating the seeds, there is a liquor of the consistence and colour of a syrup, which smells very strong and is bitter and astringent. Browne says that this would prove an excellent medicine, where rough astringents are requisite; he also observes, "There is no plant more common than this in the lowlands of Jamaica, but the smell of the whole plant is so rank and disagreeable, that it cannot be used even for firewood. Cattle are said to browse upon its more tender shoots, in dry weather." It is called the *acacia* or *acacia-bush*, and frequently made hedges of.

Cashaw grows to a large size, and is found in great abundance in the neighbourhood of Passage Fort, and the Bridge River in St. Dorothy. It is luxuriant and spreading. It is esteemed a good timber wood, and used for building small craft and wharf piles, on account of its being offensive to the worm, tough, and lasting. The wood is of a firm grain, beautiful brown colour, very glossy when polished, and, though it stinks worse than assafoetida when first cut, it acquires, by keeping, a perfume or agreeable odour, very similar to that of rosewood. It seems to be largely impregnated with a resin, which probably is not without some valuable quality. Both the bark and roots of this tree afford a red dye, at present unattended to.—Lang, p. 838.

2. JULIFLORA.

*Diffusa, spica oblonga, siliquis longioribus compressis.* Browne, p. 252.

Spines stipulary, in pairs; leaves bipinnate, bijugous, distinguished by a gland; spikes pendulous; legumes compressed.

This is called the *poponax*, or *oponax*, and rises frequently to the height of fourteen or fifteen feet. It is not so prickly as the *tortuosa*, and the leaves are rather larger; it is of a more spreading growth, and furnished with oblong flower spikes, and much

much longer legumes or pods. It was introduced into this island from the continent, and thrives very luxuriantly; increasing indeed so fast as to become very troublesome in most pastures.

*Poponax*.—This is a name, but very erroneous, that they in Jamaica give to a plant which is of the *acacia* kind, and is more exactly like the Egyptian *acacia*, or thorn. It is reported, that a certain person brought the seed of it to Jamaica, and planted it, and said, if he lived to see it grow, he should get an estate by it; but how, remains a mystery to this day, unless it is for its dying quality; its flowers are indeed very odoriferous. The dyers use the husk of the pods to dye black; they also soak some of the pods all night in water, then mix a little alum with it, and boil it to a due thickness, which makes a very fine black and strong ink. I have often made it, and wrote with it, and observed it never fades or turns yellow, as copperas ink will. I carried some of the pods with me to England in 1717, and gave them to a dyer, who tried them, and said, they exceeded galls for dying of linen, and, if they would come as cheap, would be preferable: but I also observed, the worms destroyed the pods and seeds quickly.

It is certain that the *succus acacia*, that is one of the ingredients of *mithridate*, and Venice *treacle*, is only the hardened juice extracted by decoction of the *acacia* or Egyptian thorn, which I take to be this tree, or at least to be as good, if not better, having rather a more restraining quality, and therefore proper in all sorts of fluxes.

The name of *poponax*, that they give to this plant, I take to be the corrupted word of *opopanax*, which is a gum, or inspissated juice, of a plant called *panax heracium*; but this is not the tree.—*Barham*, p. 150.

The planters made fences with it in the southern lowlands and savannas, but its seeds dispersing about, it soon sprouted spontaneously, and now it over-runs vast tracts of land, and maintains its ground so firmly, that so long as the least particle of the root remains, it never ceases throwing up its thorny plants; whence it is next to impossible to eradicate it entirely from a piece of land in which it has once flourished. The pods are richly impregnated with a sticky astringent gum, easily to be extracted.—When they are half ripe, this juice may be made use of for cementing broken china. The trunk, when wounded, emits a transparent gum, like gum arabic. The pods are liable to be destroyed by a worm, but they might probably be preserved by steeping a little while in lime-water, by fumigation with brimstone just before they are packed, or by putting a small bag or box of camphor into the package.

The roots, when bruised, yield a very offensive smell; and a decoction made from them is said to be mortally poisonous.

But, since this plant is now grown so common, and even troublesome, might it not be worth while to try if some benefit could be made of it in trade? The person who first gave it introduction probably mistook it for the true *acacia*, which yields the medicinal gum and *succus* of the shops; experiments are required to determine, whether the gum obtainable from the trunk of these trees is not of similar use and efficacy in medicine? and whether the gummy juice of the pods may not be extracted, and prepared in a proper form, for a remittance to Europe? Thirdly, whether they cannot be brought into demand and consumption among the dyers, as they yield so fine and strong a black tint, which is much wanted for linens. It is evident, from the affinity of these plants, that the Egyptian might, if it was introduced into this island, be propagated with equal facility.—*Long*, p. 812.

The

The pods and seeds of the cashaw are greedily eaten by cattle and horses, especially in dry weather. If the latter, however, have access to water they will drink heartily, and it proves fatal to them. The moisture arouses the vegetation, and the seeds swell and put forth shoots even in the animals stomach. This is not the case with cattle, and is, in all probability, prevented by the second mastication.

See CACCOON—EAST INDIA EBONY—GUM-ARABIC—INGA TREE—NEPHRITIC TREE—SENSITIVE PLANT—WILD TAMARIND.

## CASHEW.

## ANACARDIUM.

CL. 23, OR. 1.—*Polygamia monoccia*. NAT. OR.—*Holoraceæ*.

This generic name is derived from two Greek words, signifying without a heart, because the fruit, instead of having the seed inclosed, has the nut growing at the end.

GEN. CHAR.—Calyx of the hermaphrodite flower is a five-leaved perianth; leaflets ovate, concave, coloured, erect, deciduous: corolla five petalled; petals lanceolate, acute, three times as long as the calyx, upright at bottom, reflex at the end: the stamens are ten filaments, united at the base, upright; nine of them capillary, shorter than the calyx; one thicker, double the length of the others, lying on the germ in front; anthers roundish, in the longer filament large and fertile, in the rest small; the pistil has a germ kidney-shaped, obliquely emarginate in front; style subulate, bent in, the length of the corolla; stigma small, roundish, depressed, concave; there is no pericarp; the receptacle is very large, ob-ovate; the seed is a kidney-shaped nut, large, at the top of the receptacle; with a thick shell, cellular within, and abounding with oil. The male flowers are either mixed with the hermaphrodites, or on a distinct tree; their calyx, corolla, and stamina, as in the hermaphrodites; the pistil has no germ, or it is abortive.

Obs.—This tree was originally placed in the tenth class; it was removed by Linneus to the ninth, and is now placed in the twenty-third, from the observations of Rottboell. There is but one species, a native of Jamaica.

—OCCIDENTALE. WESTERN.

*Pomifera, seu potius prunifera Indica nuce reniformi summo pommo inascente, cajous dicta.* Sloane, v. 2, p. 136. *Fructu obverse ovato, nuce reniformi, racemis terminalibus.* Browne, p. 226.

This tree, in favourable situations, grows to the height of twenty feet or more. The root is large and brachiated, the tree spreading and very ramose. The leaves stand very thick on the branches, and are of an oval form, smooth, tough, and shining, petioled, scattered alternately. The flowers are small, and grow in a kind of umbel-form at the tops of the branches, are of a dirty red colour, they are numerous, and have a sweet smell. The fruit is sometimes reddish, and sometimes yellow, or streaked, which Browne took to be owing to some difference in the soil or culture, which is not the case, for A. Robinson observes that, upon planting the stones, the trees proceeding from the nut of the yellow fruit bear yellow, and not red, and vice versa. He also mentions having seen a tree bearing double nuts.

The



The fruit is full of an acrid juice, which is frequently made use of in making punch. To the apex of the fruit grows a nut of the size and shape of a hare's kidney, but much larger at the end which is next the fruit than at the other. The shell is very hard; and the kernel, which is the finest nut in the world, is covered with a thin film. Between this and the shell is lodged a thick, blackish, inflammable liquor, of such a caustic nature in the fresh nuts, that, if the lips chance to touch it, blisters will immediately follow. The fruit is said to be good in disorders of the stomach; the juice of which cuts the thick tough humours, which obstruct the free circulation of the blood, and thus removes the complaint. This juice, expressed and fermented, makes a fine rough wine useful where the viscera or solid system has been relaxed. It does not thrive in high mountains.

This tree and fruit are so well known in America, especially in Brasil and in Jamaica, that they need no particular description. The stone of this apple appears before the fruit itself, growing at the end, in the shape of a kidney, as big as a walnut. Some of the fruit are all red, some all yellow, and some mixed with both red and yellow, and others all white, of a very pleasant taste in general; but there is a great variety, as some more sharp or tart, some like the taste of cherries, others very rough like unripe apples, but most of them sweet and pleasant, and generally goes off with a restringency or stipticity upon the tongue, which proceeds from its tough fibres that run longways through the fruit; when cut with a knife, it turns as black as ink. There are some of the fruit bigger than others, but the generality of them are as big and much of the shape of French pippins, and make an excellent cyder or wine. I, having a large orchard of about three hundred trees, after the market was glutted with them, distilled a spirit from them far exceeding arrack, rum, or brandy, of which they made an admirable punch, that would provoke urine powerfully. The flowers are very small, and grow in tufts, of a carnation colour, and very odoriferous. The leaves much resemble the English walnut-tree leaves in shape and smell, and are as effectual in old ulcers, cleansing and healing them, being decocted, and the ulcers washed with it. The nut hath a very caustic oil, lodged in little partitions betwixt the two outward coats, which will flame violently when put in the fire. The oil cures the *herpes*, cancerous and malignant ulcers abounding with rotten flesh; it also kills worms in ulcers and chigoes; it takes away freckles and liver spots, but it draws blisters, therefore must be cautiously made use of; and some make issues with them; it also takes away corns, but you must have a very good defensive round the corn, to prevent inflaming the part. The inside kernel is very pleasant to eat, when young and before the fruit is come to ripeness, exceeding any walnut; and when older and drier, roasted, they eat very pleasant, exceeding pistachia-nuts or almonds, and, ground up with cocoa, make an excellent chocolate. The gum of this tree is very white and transparent like glass. It hath been observed, that poor dropsical slaves that have had the liberty to go into a cashew-walk, and eat what cashews they please, and of the roasted nuts, have been recovered.—These trees are of quick growth: I have planted the nut, and the young trees have produced fruit in two years time, and will keep bearing once a-year for forty or fifty years, nay, a hundred, by what I can understand, if no accident attends them. Many are now flourishing in Jamaica that were planted when the Spaniards had it in possession; for the wood is excellent strong and lasting timber.—*Barham, p. 32.*

Some planters roast the ripe fruit at a fire, and slice one or two into a bowl of punch, to give it a pleasant flavour. The

The tree annually transudes in large quantities, viz. often to ten or twelve pounds weight of a fine, semi-transparent gum, similar to gum arabic, and not at all inferior to it in virtue and quality, except that it contains a slight astringency, which perhaps renders it, in many respects, more valuable; for which reason it is often used as a *succedaneum* in the Jamaica shops, and might answer equally well in Great Britain, if encouragement was given to collect and remit it.\*

The thick oil of the nut, or shell, tinges linen of a rusty iron colour, which can hardly be got out; and if any wood be smeared with it, it preserves it from decay. If a proper method could therefore be fallen upon, for extracting this oil from the shell, which at present is generally thrown away as useless, it would doubtless be applicable to various good purposes; for no worm would attack the wood whose pores are filled with it. It would certainly be an excellent preservative to house-timbers, if not to ships bottoms, mixed with other compositions; though, for the latter operation, perhaps it might be difficult to obtain it in plenty sufficient, or at a price that would make it answer to the experiment. But, where a less quantity might be wanted, there is great probability of obtaining it; as the tree is so easily propagated, grows in almost any soil, bears luxuriantly, and lives to a very great age.

From the body of the tree is procured, by tapping or incision, a milky juice, which stains linen of a deep black, and cannot be got out again: but whether this has the same property with that of the East Indian *anacardium*, has not yet been fully experimented; for the inspissated juice of that tree is the best sort of lac which is used for staining black in China and Japan.

Dr. Grew mentions the juice being used for staining of cottons; but it is doubtful which of the species he means; though Sir Hans Sloane supposes it to be of the *acajou* or cashew, here mentioned. However, it may be very well worth the trial. A few of the trees may be tapped in the bleeding season, the juice collected in earthen pots, kept in a place free from dust, or the pots covered with a linen cloth, to prevent dust from mixing with it; and, when of a proper consistence, experiments may be made to see if it has the same property with the Japan lac, which, if it has, it may prove a valuable commodity. It may be proper, for greater certainty, to vary the experiment; to expose some of the juice in shallow wooden receivers, covered with a single linen cloth, to the heat of the sun, and reduce it to a consistence in the same manner as the aloes; or inspissate it in iron pots over a fire, by gentle evaporation. If either way should succeed, a new and important article would be gained to the commerce of the island.—*Long, p. 725.*

The oil between the rinds, if held to a candle, emits bright, salient, particles. This oil is used as a cosmetic to remove freckles and sun-burning, but the pain suffered makes its use not very frequent.—*Grainger.*

Expressed juice of the fruit, in red wine sangaree, good in female weaknesses.—Cure also for the dropsy. The Portuguese turn their dirt eating negroes out in the cashew season, and force them to live on the fruit. *Labat, tom. 2, p. 233.—Dancer's Medical Assistant.*

#### CASSADA.

\* In consequence of a premium offered some years ago, by the society for the improvement of Arts, &c. a quantity of the gum was sent to England, to be tried as a substitute for gum Senega, in dyeing silks, but it was not found to answer in those of light colours, because it contained a small quantity of blackish sediment or resin which stained them, but in those of a black colour it answered as well as gum Senega, and so far it opens a market for this gum. It has the appearance of the clearest gum arabic, and has been found of great use in pasting papers together, as it never cracks nor will any insect eat it. It would therefore be very useful for the purposes of an herbarium.

## CASSADA.

## JATROPHA.

CL. 21, OR. 9.—*Monoecia monadelphica*. NAT. OR.—*Tricoccae*.

This generic name is derived from two Greek words, signifying an eatable poison.

GEN. CHAR.—Male calyx a scarcely manifest perianth; corolla one-petaled, funnel form; tube very short; border five-parted; divisions roundish, spreading, convex, concave beneath; stamens ten filaments, awl-shaped, approximated in the middle; the five alternate ones shorter, upright, shorter than the corolla; anthers roundish, versatile; the pistil is a weak rudiment, latent in the bottom of the flower. The female, in the same umbel with the males, has no calyx; corolla five-petaled, rosaceous; the pistil has a roundish germ, three-furrowed; styles three, bifid; stigmas simple; the pericarp is a roundish capsule, tricocous, three-celled, cells bivalve; seeds solitary, roundish. To this genus belong the physic nuts. There are two varieties of the following species:

## 1. MANIHOT.

Leaves palmate; lobes lanceolate, quite entire, even.

Var. BITTER CASSADA—*Ricinus minor viticis obtuso folio, caule verrucoso, flore pentapetalo albid., ex cujus radice tuberosa, succo venenato turgida, Americani panem conficiunt.* Sloane, v. 1, p. 130, t. 85. *Foliis palmatis pentadactylibus, radice conico-oblonga, carne sublacteæ.* Browne, p. 349.

This plant shoots from a tough, branched, woody, root, whose slender collateral fibres swell into those fleshy conic masses, for which the plant is cultivated; and rises by a slender, woody, knotted, stalk, to the height of four, five, or six, feet, or more. The leaves are alternate, smooth, on long petioles, six or seven-lobed; lobes narrow at the base, growing broader till within an inch and a half at the top, where they diminish to an acute point; the three middle lobes are about six inches long, and two broad where broadest; the two next are about an inch shorter, and the two outside lobes are not more than three inches long; the middle lobes are sinuated on each side near the top, but the two others are entire. The flowers are produced in small umbels at the tops of the stalks, some male and others female; petals five, spreading; in the male flowers stamens ten, united; in the females germ round, with three furrows in the centre; styles three, two distant, and one rising between them shorter, all crowned by a single stigma; capsule roundish.

The root of this plant makes a very good and wholesome bread, notwithstanding the juice is a deadly poison, called *manipuera*, wherefore great care is taken to press out all its juice; and then, dried in the sun, beat, and finely sifted, and baked upon a flat, broad, round, iron, commonly called a baking stone, they make the cakes as broad as a hat, which, buttered while hot, eat like an oat cake. I have seen several bad accidents happen to negroes newly come to Jamaica, and strangers to the root, who have eat of it only roasted with its juice, which hath poisoned them: The symptoms are, first, a pain and sickness of the stomach, a swelling of the whole abdomen; then violent vomiting and purging, giddiness of the head, then a coldness and shaking, dimness of sight, swoonings, and death, and all in a few hours. The expressed juice of the root is very sweet to the palate, but soon putrefies and breeds worms, called *topuea*, which are a violent poison, and which Indians too well know the use of: They dry these

worms

worms or maggots, and powder them; which powder, in a little quantity, they put under their thumb-nail, and, after they drink to those they intend to poison, they put their thumb upon the bowl, and so cunningly convey the poison; wherefore, when we see a negro with a long thumb nail, he is to be mistrusted. Cassada bread, milk, and sweet oil, make an admirable poultice to ripen and break any swelling.—*Barham*, p. 34.

This plant, which furnishes the Brasilians with great part of their sustenance, is much cultivated in this island. It thrives best in a free mixed soil, and is propagated by the bud or germ, in the following manner. The ground is first cleared, and hoed into shallow holes, of about ten inches or a foot square, and seldom above three or four inches in depth, and without much regularity. A number of the full grown plants being provided, they are cut into junks, of about six or seven inches in length, as far as they are found to be tough and woody, and well furnished with swelling, full-grown, hardy, buds. Of these one or two are laid in every hole, and covered over with mould from the adjoining bank. The ground must be kept clean till the plants rise to a sufficient height; the plants moulded up; and the growth of weeds prevented. They come to perfection in about eight months; but the roots will remain in the ground for a considerable time uninjured, if the want of fresh plants, or bad weather, should make it necessary to cut the stalks. When the leaves wither, and the plant blossoms, the roots are fit to dig. They are then, (in good land) nearly as thick as a man's thigh.—They are taken out for use, as occasion requires, and then prepared, viz. after being well washed and scraped, and then rubbed into a kind of pulpy meal with an iron grater, they are put into strong linen bags, and placed in convenient presses. The common method of pressing is as effectual as any. One or more large flat stones are placed to a proper height upon the ground, near the root of some old tree, in the side of which a hole, or notch, has been cut equal to the elevation of the stones. Into this hole is fixed the extremity of a strong plank, or beam, which stretches over the stones by way of a lever, pressing with all its weight upon the cassada bag, which is laid upon the uppermost stone. Several heavy loads are fixed at the other end of this lever, or as many as it will bear; and in this state the bag remains until the juice is thoroughly squeezed out. After this operation, the meal is spread in the sun for some time; then pounded in a large wooden mortar, passed through a coarse sieve, and baked on flat, circular, iron plates, fixed in a stove. The particles of the meal are united by the heat, and, when thoroughly baked in this manner, form cakes, which are sold at the markets, and universally esteemed a wholesome kind of bread.\* Toasted and buttered, they are very relishing, and used by most families. They are also made into very delicious puddings. The juice of the root is of a poisonous nature; but, when boiled, it throws up a scum, which, being taken off, the remainder is found, by long experience, to be an inoffensive and agreeable drink, much resembling whey in taste and quality. But, however noxious the juice may be in its crude state, unmixed with any corrective, it is well known that hogs eat the fresh roots with great avidity, and suffer no inconvenience: either, therefore, their stomachs and intestines are formed to assimilate it into wholesome nourishment, or they correct its bad qualities by the surrounding mould swallowed with it, or by some antidote which instinct prompts them to eat after it.\*

\*The Spaniards, when they first discovered the West Indies, found it in general use, among the native Indians, who called it *casabi*, and by whom it was preferred to every other kind of bread, on account of its easy digestion, the facility with which it was cultivated, and its prodigious increase.

it.\* The negroes boil and eat the leaves as a green. It is supposed that the action of the fire carries off its malignant qualities. What is not a little extraordinary, the meal, not yet discharged of its juice, makes an excellent salve, and seldom fails to heal the worst sores; and, to improve its effect, it is sometimes mixed for this intention with the fresh leaves of tobacco pounded.—*Long*, p. 777.

*Rochon* says its poison only acts on the nervous system, and produces no inflammation on the stomach; but the stomach of a man, or other animal, poisoned by it, appears to be contracted one half. *Browne* says it has been lately discovered by an ingenious gentleman, who has practised many years in the warm parts of America, that a little mint water and salt of wormwood, mixed and taken, will calm the most violent symptoms that arise on taking it, if timely administered. The poison being of a cold kind, warm and active medicines are considered the best. The Indians of Guiana give a mixture of red pepper bruised in rum. The common remedy in Brazil is, first, to give a dose of ipecacuanha, and then the juice or powder of a plant called *nahambu*, of which the compiler has not been able to discover the generic name. *Grainger* says that warm water poured on toasted cassada, or on oatmeal made brown, will often stop a vomiting; but mint-juice, mixed with sugar, and warm goats milk, will generally succeed when it fails.

2 Var.—SWEET-CASSADA.—*Foliis palmatis, lobis incertis, radice oblonga funiculo valido per centrum ducto, carne nivea.* *Browne*, p. 350.

This plant is very like the foregoing in habit and appearance, and raised and cultivated in the same manner; but the root is free from any of that deleterious quality that is observed in the juices of the other sort. It is always planted in separate places for fear of a mistake, and roasted or boiled for use; but the latter seems to be the best method of dressing it; for, in this state, the outward part is commonly brought almost to a jelly, and is extremely delicate and agreeable.—*Browne*, p. 350. *Barham* says it may be eaten raw, or roasted like a potatoe, without any manner of prejudice or hurt, being very nourishing, and makes a very fine white flour. From the root of the sweet cassada *tapioca* is made, in every respect similar to that imported; which is done by grating them, washing and infusing them in water, and evaporating the liquor so as to obtain a sediment like starch, which must be well dried in the sun.

## 2. GOSSYPIFOLIA. COTTON LEAVED.

*Ricinus minor staphysagriæ folio, flore pentapetalo purpureo.* *Sloane*, v. 1, p. 129, t. 84. *Humilior setis ramosis ornata; foliis trilobis vel quinquelobis, levissime denticulatis.*—*Browne*, p. 348.

Leaves five-parted; lobes ovate, entire, ciliate; bristles glandular, branched, on the petioles.

The leaves of the *gossypifolia*, cotton-leaved *jatropha*, wild cassada, or belly-ache bush, are quinquepartite, with lobes ovate and entire, and glandular bristly. The stem, which is covered with light greyish bark, grows to about three or four feet high, soon dividing into several wide-extended branches. These are neither decorated with leaves nor flowers till near the top, which is then surrounded by the former; their

Y 2

footstalks,

\* A sow, poisoned with cassada root, was preserved by giving her some of the antidote cocoon.

footstalks, as well as the young buds on the extremity of the branches, are guarded round with stiff hairy bristles, which are always tipped with glutinous liquid drops.—From among these rise several small deep red pentapetalous flowers, the pistil of each being thick set at the top with yellow farinaceous dust, which blows off when ripe: these flowers are succeeded by hexagonal husky blackish berries, which when ripe open by the heat of the sun, emitting a great many small dark-coloured seeds, which serve as food for ground doves and poultry, which are very fond of them. The leaves are few; but seldom or never drop off, nor are eaten by vermin of any kind. This plant grows very commonly about the streets of Spanish Town and Kingston.

Dr. Wright informs us that a decoction of the leaves is often used with advantage in spasmodic belly-ache, attended with vomiting; it sits easier on the stomach than any thing else, and seldom fails to bring about a discharge by stool. The seeds are drastic purges and emetics; and they yield, by decoction, an oil of the same uses and virtues as the *oleum ricini*.

In the months of March and April, there is found, in the inside pith of the footstalk, a hard knotty excrescence, of an oval shape, hard and yellowish, of divers sizes, as from a hazel-nut to a hen's egg: I never could find what use they are of; only I have observed the boys will powder them and give it for snuff, which will burn and tickle the nose, and cause greater sneezing than white hellebore. I am apt to believe they will purge violently; for the young tops of this plant, boiled and buttered, are often given in the dry belly-ache, as also in clysters, purging violently when nothing else would go through the patient. The seeds are like a small *ricinus*; and, if they are not the true granadilla, yet they purge as strongly; for two or three seeds, given by themselves, or mixed with pills, quicken the purging quality. I knew a practitioner who always made up pill *ex duobus* with addition of these seeds, which made the pill work stronger and quicker, and kept it always moist. You make the pill thus: Take wild cassada-seeds husked, three ounces; cambogia, coliquintida, and scammony, of each one ounce; make a pill according to art; the dose is two or three small ones.—They will purge very briskly all watery humours.—*Barham, p. 35.*

Six or more of the young leaves of the wild cassada, boiled and eaten as calalúe, are a strong purge in the dry belly-ache. Fifteen or twenty of the young leaves in decoction, with castor oil, are used for a clyster in the same complaint. Dr. A. Robinson advises the decoction internally.—*Dancer's Med. Ass.*

See PHYSIC NUT.

### CASSIA-STICK TREE.

### CASSIA.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Lomentaceæ.*

GEN. CHAR.—See Cane-Piece Sensitive, p. 151.

FISTULA. PIPE.

*Cassia nigra seu fistulosa prima, sive cassia fistula Alexandrina.*—Sloane, v. 2, p. 42. *Arborea, foliis paucioribus ovatis atque pinnatis, siliqua maxima cylindracea.* Browne, p. 222.

: Leaflets.

Leaflets five pairs, ovate-subtomentose; petioles round, without glands.

This rises to the height of forty or fifty feet, with a large trunk, dividing into many branches, garnished with winged leaves, composed of five pair of spear-shaped lobes, which are smooth, having many transverse nerves from the midrib to the border. The flowers are produced in long spikes at the end of the branches, and have a very agreeable smell, each standing upon a pretty long foot-stalk; these are composed of five yellow concave petals, which are succeeded by cylindrical pods from one to two feet long, with a dark brown woolly shell, having a longitudinal seam on one side, divided into many cells by transverse partitions, each containing one or two oval, smooth, compressed seeds, lodged in a blackish pulp, which is used in medicine. Such pods should be chosen as are weighty, new, and do not make a rattling noise (from the seeds being loose within them) when shaken. The pulp should be of a bright shining black colour, and a sweet taste, not harsh, which happens from the fruit being gathered before it has grown fully ripe, or sourish, which it is apt to turn upon keeping; it should neither be very dry, nor very moist, nor at all mouldy; which, from its being kept in damp cellars or moistened, in order to increase its weight, it is very subject to be. Greatest part of the pulp dissolves both in water and in rectified spirit; and may be extracted from the cane by either. The shops employ water, boiling the bruised pod therein, and afterwards evaporating the solution to a due consistence. This pulp is a gentle laxative medicine, and frequently given, in a dose of some drachms, in costive habits. Geoffroy says, it does excellent service in the painful tension of the belly, which sometimes follows the imprudent use of antimonials; and that it may be advantageously actuated with the more acrid purgatives, or antimonial emetics, or employed to abate their force. Vallisniori relates that its purgative virtue is remarkably promoted by manna; that a mixture of four drachms of cassia and two of manna purges as much as twelve drachms of cassia or thirty-two of manna alone. Senertus observes, that the urine is apt to be turned of a green colour by the use of cassia; and sometimes, where a large quantity has been taken, blackish.

This tree grows in many parts of Jamaica, but is not indigenous.

The pulp is soft, black, sweetish, and of the consistence of thick honey, and contains oblong, roundish, flattish seeds, that are hard, shining, and of a dusky yellow. The pulp is only in use, which is taken from the pods, and passed through a sieve. It is looked upon as a mild inoffensive purge, agreeing with all sexes and ages. In the West Indies the shell is observed to be thicker, and the pulp acrid; in which respect it differs from that of the East Indies; and perhaps this is owing to a difference in soil and culture. In Jamaica the finest fruit is produced from trees growing in rich deep mould in some bottom or vale, warm and well sheltered; it is not wonderful that the quality should degenerate, when no pains are taken in the cultivation of it.—*Long*, p. 730.

The pulp of the pod, strained through a coarse sieve, may be kept as an electuary; but the pulp does not keep long, without turning rancid. Dose the bulk of a small nutmeg.—*Dancer's Med. Ass.* p. 380.

See CANE PIECE SENSITIVE—HORSE CASSIA—RINGWORM SHRUB—SENNA—STINKING WEED—WILD INDIGO.

## CAT-CLAWS.

## DOLICHOS.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

This generic name is derived from a Greek word, signifying long, from the length of the pods.

GEN. CHAR.—Calyx a one-leaved perianth, very short, four toothed, equal; the superior tooth emarginate; corolla papilionaceous, standard roundish, large, emarginate, reflex; two calluses, oblong, parallel and longitudinal, growing to the standard beneath towards the base, compressing the wings, not hollowed on the back; wings ovate-obtusè, length of the keel; keel lunulate, compressed, beneath converging closely, length of the wings, ascending at the tip: The simple filament is curved at the base; anthers simple; the pistil has a linear compressed germ; style ascending; stigma bearded, running on inwardly from the middle to the tip of the style, which, on the forepart, is callous obtuse; the pericarp is an acuminate legume, large, oblong, two-valved, two-celled; seeds several, elliptic, usually compressed. The habit is that of *phaseolus*; the keel, which is not spiral, distinguishes the genus, of which eight species are natives of Jamaica, the following, and those referred to under their English names:

## 1. FILIFORMIS. THREAD-FORM.

*Herbaceous minor, foliis linearibus, siliqua polyspermi compressa.*—*Browne*, p. 294.

Leaflets linear-obtusè, mucronate, smooth, pubescent underneath.

This little plant is frequent about Old Harbour, it grows among the bushes, but seldom stretches above three or four feet in length. The pods are long and compressed; and the stigma or top of the style, almost naked. This plant is used as a purgative ingredient in diet-drinks, and is said to answer well in hydropic cases.—*Browne*.

## 2. ROSEUS. ROSE-LIKE.

*Phaseolus maritimus rotundifolius, flore purpureo, siliqua brevi cristata, semine fusco striato.* Sloane, v. 1, p. 179. *Maritimus repens, foliis orbiculatis nitidis, siliquis compressis, sativa altera trigona.* *Browne*, p. 293.

Stem creeping, ascending; leaflets roundish, shining; flowers in racemes; legumes three-keeled at the back.

*Browne* calls this plant the large seaside dolichos with round leaves, and says the root is a strong purgative. *Sloane* calls it sea bean, and describes it as follows:

“It has a deep white root, with white filaments, running through the loose sandy soil. The stalks are many, lying on the surface of the ground for many yards, being about the bigness of a swan's quill, green, and a little cornered, putting out leaves alternately, three always standing together. The leaves are almost round, green, and smooth. The flowers are papilionaceous, and of a pale purple colour. The pod is two inches long, and three-quarters of an inch broad, straight, of a clay colour, swelled out, or the pease appearing in it before it be opened, having two crests, raised ledges, or eminent lines, one on each valve near the opening of it. The peas are about six in number, each lying in a different membrane, of the bigness of an ordinary bean.—They are oval, brown, and clay-coloured spots upon them, having a black eye or hilus, by



by which they are fastened to the pod. It grows on the keys near Port Royal, plentifully, and the peas are dangerous to eat."—Sloane.

### 3. REPENS. CREEPING.

*Maritimus, minor, repens; pedunculis longioribus; siliquis polyspermibus, gracilibus, teretibus.* Browne, p. 293.

Stem creeping; leaves pubescent, ovate; flowers racemed, in pairs; legumes linear, columnar.

This plant grows commonly by the sea-side.. Browne calls it *the smaller sea-side Dolichos*.

### 4. MINIMUS. SMALL.

*Phaseolus minimus, fœtidus floribus spicatis e viride luteis semine maculato.* Sloane, v. 1, p. 182, t. 115, f. 1. *Minimus fœtidus repens, siliculis bispermibus.* Browne, p. 294.

Legumes in racemes, compressed, with four seeds in them; leaves rhomb-shaped.

This plant has round, small, tender, stalks, twisting round any thing they come near, till it be six or seven feet high, (Browne says it seldom exceeds two or three,) having here and there leaves and flowers. The leaves are always three together, small, of a yellowish green colour on the same peduncle; the flowers are many spike-fashion, small, scarce opening, and of a greenish yellow colour, succeeded by small pods, a quarter of an inch long, black and rough, containing one or more small oblong, blackish, green speckled peas. The whole plant has an unsavoury rank smell, and grows in rocky places.—Sloane. Browne calls it *the small fœtid dolichos*. In Curaçoa it has the name of *wrattekruyt*, or wart-herb, the leaves, bruised with salt, being reputed to cure warts.

### 5. LUTEUS. YELLOW.

Twining; flowers in a sort of spike; legumes sub-cylindric, smooth; leaves roundish, rhombed, obtuse, entire, smooth.—Sw. Pr. p. 105.

Besides the above indigenous species, three exotic ones have been introduced, the *lablab*, of which arbours are made in the East; the *sinensis*, or Chinese dolichos; and the *catiag*, which is said to be cultivated for food in the East Indies.

See COWITCH—HORSE BEAN—HORSE-EYE-BEAN.

CATESBEA—See TRUMPET FLOWER.

## CAT-MINT.

## NEPETA.

CL. 14; OR. 1.—*Didynamia gymnospermia.* NAT. OR.—*Verticillata.*

GEN. CHAR.—Calyx one-leafed, five-toothed; corolla one-petalled, ringent, lower lip with an intermediate segment, crenate, throat reflex at the edge; stamina awl-shaped, beneath the upper lip approximating; anthers incumbent; the pistil has

a four-cleft germ, filiform style, and bifid stigma; there is no perianth; calyx straight, containing the seeds in its bosom, which are four, sub-ovate.

## CATARIA.

Flowers in spikes; whorls sub-pedicelled; leaves petioled, cordate, tooth-serrate.

This plant is a native of Europe, but thrives very well in Jamaica. The stalk is branched, the leaves are hoary, particularly below. The flowers are flesh-coloured, growing verticillate in spikes at the tops of the branches; the middle segment of the lower lip is spotted with red. The plant has a bitter taste and a strong smell, not unlike pennyroyal. An infusion of it is reckoned a good cephalic and emmenagogue, being found very efficacious in chlorotic cases. Two ounces of the expressed juice may be given for a dose. It is called cat-mint, because cats are very fond of it, especially when it is withered; for then they will roll themselves on it, and tear it to pieces, chewing it in their mouths with great pleasure. Mr. Ray mentions his having transplanted some of the plants from the fields into his garden, which were soon destroyed by the cats; but the plants which came up from the seeds in his garden escaped; this verifies an old proverb, "If you set it, the cats will eat it; if you sow it, the cats will not know it." Mr. Withering is of opinion, that where there is a great quantity of plants growing together, the cats will not meddle with them; but Mr. Miller observes that he has frequently transplanted one of these plants from another part of the garden, within two feet of which some came up from seeds; in which case the latter have remained unhurt, when the former have been torn to pieces and destroyed: he acknowledges, however, that where there is a large quantity of the herb growing together, they will not touch it. This is a curious circumstance, and not easily accounted for; Mr. Ray, however, has assigned a reason, which seems just in a certain degree, that the cat is fond of the plant in a languid or withering state, or when the peculiar scent of it is excited by having been handled or bruised; but still this does not account for the cats avoiding it, when in considerable quantities, and only making a prey of it when in detached parcels.

This plant is very hardy, and easily propagated by seeds. If sown upon a poor dry soil it does not grow too rank, but continues longer, and has a handsomer appearance than in rich ground, where it grows too luxuriantly, and loses its scent.

CAT-NAIL.—See TURKEY-BERRIES.

## CAT-TAIL, OR REED MACE.

## TYPHA.

CL. 21, OR. 3.—*Monococcia triandra*. NAT. OR.—*Calamariæ*.

This generic name is derived from a Greek word for a marsh, where these plants generally grow.

GEN. CHAR.—The male flowers are numerous, in an ament, terminating the culm; the calyx is a common ament, cylindrical, very close, composed of three-leaved setaceous proper perianths; there is no corolla; the stamens are three filaments, capillary, the length of the calyx; anthers oblong, pendulous. The female flowers are numerous, in an ament surrounding the same culm, digested very compactly,

compactly, they have neither calyx nor corolla; the pistil has an ovate germ, placed on a bristle, an awl-shaped style, and a capillary permanent stigma; there is no pericarp; the fruits numerous, forming a cylinder; seeds single, ovate, retaining the style, placed on a bristle; down capillary, from the base to the middle fastened to the seed-bearing bristle, length of the pistil.

## LATIFOLIA. BROAD-LEAVED.

*Typha palustris major*. Sloane, v. 1, p. 122. *Simplex, foliis longis, angustis compressis, spica duplici terminali*. Browne, p. 236.

Leaves somewhat sword-shaped; male and female spikes approximating.

The root is creeping, the young shoots white, terminating in a sharp point. Stalk from three to six feet high, simple, upright, leafy, round and smooth, without knots, leafy at the base. Leaves alternate, upright, twisted, at bottom sword-shaped and fleshy, at top flat, about an inch in breadth, and two or three feet in length, inclosing the stalk in a very long sheath. Sheaths two, deciduous, one at the bottom of the male spikes, the other at the middle; frequently a third smaller between the middle and the top of the spike. This plant is found in every quarter of the world, and grows in all climates, in ponds, ditches, and the sides of brooks. Haller says that the roots are eaten in sallads, and cattle eat the leaves. Sloane says its down is used for beds, and applied to kided heels cures them. Schrever asserts that the leaves are suspected to be poisonous. Browne mentions the leaves as making good mats, and being used for thatch. It grows naturally in Jamaica.

This is commonly found in all the lagoons. The leaves are long and ensiformed. They make excellent mats. The seeds have a stupifying quality; and, when pounded and mixed with butter, or other proper substance, destroy mice. An unguent is prepared of them, with hogslard, for burns or scalds. The seeds are esculent, roasted. —Long, p. 761.

## CEDAR.

## CEDRELA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Miscellanea*.

GEN. CHAR.—Calyx is a small one-petaled perianthium, bell-shaped, five-toothed, withering; corolla monopetalous, double the length of the calyx, divided into five oblong sections; the stamina are five filaments, shorter than the corolla, seated on the receptacle, with subrotund anthers; the pistil has a subrotund germen, a five-cornered proper receptacle; style cylindric, length of the corolla; stigma headed, depressed; the pericarp is a superior capsule, five-celled, five-valved, woody, the valves deciduous; seeds many, fleshy, oblong, compressed, imbricate downwards, terminated by a membranaceous wing; receptacle woody, five-angled, free.

## ODORATA. SMELLING.

*Prunus forte affinis arbor maxima, materie rubra, laxa, odorata*. — Sloane, v. 2, p. 128, t. 220, f. 2. *Foliis majoribus pinnatis, floribus laxo racemosus, ligni levi odorata*. Browne, p. 158, t. 10, f. 1.

## Flowers panicked.

This tree rises with a straight stem to the height of seventy or eighty feet, and frequently found from three to five feet in diameter. While young the bark is smooth and of an ash colour, but as it advances the bark becomes rough and of a darker colour, having longitudinal fissures. Towards the top it shoots out many side branches, garnished with alternate winged leaves, composed of from eight to fifteen pairs of opposite leaflets, so that they are from eighteen inches to two feet and a half in length; the leaflets are broad at their base, ending in a narrow point, and from three to five inches long. The peduncle is round, swelling into a knot, and somewhat clavated at the base; pedicels round, opposite. The flowers on a very branching raceme, panicked; corollas whitish, flesh colour. The fruit is a capsule, continued from a woody peduncle, and woody itself, brown, with irregular pale spots, appearing as it were leprous, within of a reddish bay colour, the valves opening from the top, but permanent at the base, and not falling. The top seeds are elliptic, the middle ones oblong-ovate, the lower ones ovate-lanceolate, all ferruginous, cinnamon colour, with a nucleus at top, and terminating below in a membranaceous wing. This tree is very common in many parts of Jamaica. When the branches or leaves are broken off this tree, or the body chopped, it has a strong and disagreeable smell, which spreads to a considerable distance, but when the wood is dry it emits an agreeable fragrance. It is very full of a dark resinous substance, light, porous, of a brownish red colour, and easily worked; it is much esteemed on this account, as well as the beauty of its grain, for wainscoting, and other cabinet ware. It is also excellent for making chests, or the inside of drawers, as no vermin will invade it, on account of its strong scent. It makes also excellent planks and shingles, which are very durable, having been known to last full thirty years, when exposed to the weather, as shingles, and the durability of the wood is no less a recommendation than its lightness for this purpose. It is not fit to be made into casks, as all spirituous liquors dissolve a great quantity of its resin, from which they acquire a strong bitter taste. The trunks of the trees are often so large as to be hollowed out into canoes and periaguas, for which purpose it is extremely well adapted, as, from the softness of the wood, it is hollowed out with great facility, and, being light, it carries great weight on the water. Canoes have been made of it forty feet long and six broad. It is a curious circumstance, but well known, that if a pigeon house be floored with this wood, the pigeons will not hatch; and, it is said, that when parrots feed on its fruit they taste of garlic; it also gives victuals laid on it a bitter taste. A clear transparent gum, like gum arabic, exudes from this tree in considerable quantities, on its being wounded, which dissolves in water, and has been found very fit for shoemakers use. This tree is easily propagated from seeds, and is of quick growth.—It occasionally sheds all its leaves, but, it would seem, at no regular periods, as some of the trees are in full foliage while others are bare.

CEDAR, BERMUDAS—See BERMUDAS.

CEIBA—See COTTON TREE.

CELANDINE OR PARROT WEED.

BOCCONIA.

Cl. 11, OR. 1.—*Dodecandria monogynia.* NAT. OR.—*Rhodaceæ.*

The

This is named in honour of Paolo Boccone, M. D. a Sicilian author of several botanical works.

GEN. CHAR.—Calyx a two-leaved perianth, ovate, obtuse, concave, caducous; there is no corolla; the stamens are twelve filaments, with linear large anthers; the style has a roundish germ, contracted both ways, large, pedicelled: style bifid; stigmas simple, reflex; the pericarp sub-ovate, attenuated at each end, compressed, one-celled, two-valved; seed one, globular, the base involved in the pulp, fixed to the bottom of the capsule. There is only one species, which is a native of Jamaica:

FRUTESCENS. SHRUBBY.

*Chelidoneum majus arboreum foliis, quercinis.*—Sloane, v. 1, p. 196, t. 125. *Ramosa, foliis majoribus sinuatis, racemis terminalibus.* Browne, p. 244.

This shrub is very common in Jamaica, and rises to the height of ten or twelve feet, with a straight trunk as large as a man's arm, covered with a white smooth bark, and branched towards the top. The trunk is hollow, filled with a pith like the elder, abounding in thick yellow acrid juice, as are all parts of the plant, like *argemone* and *celandine*. At the top it divides into several branches, on which the leaves are placed alternately, they are eight or nine inches long, and five or six broad, and deeply sinuated or gashed, sometimes almost to the midrib, of a yellowish green colour. They are sub-serrate, with roundish petioles. Racemes terminating, panicle, a foot or more long, diffused, nodding; peduncles one-flowered; bractes, under the flowers, small, lanceolate. It is common in all the shady gullies that lie among the hills and mountains in the inland parts. The following has been recommended for the cure of a film on the eye, or fungus: Take the root of this plant, peel off the bark, then scrape and strain it through a fine rag, when it may be put into a phial for use. Drop three or four drops in the eye, twice a-day, and it will take off any film, occasioned by the small pox or otherwise, fungus, proud flesh, &c. Its root is also a cure for ulcers, by scraping off the bark, and bruising and spreading a cataplasm on rag or lint: this must be laid on the sore, after clearing it of proud flesh, and it will make a perfect cure in a very short time. The juice stains a deep yellow, and is very bitter and biting to the taste.

I have often met with this plant, and wondered how they came to call it celandine, it differing so much from the English sort; for this generally grows six or seven feet high with a very thick stalk, covered with a white smooth bark, branching with a great many large leaves, and deeply divided at the ends, of a yellowish-green colour on the upper side, and whitish underneath; on the top comes out a branch of a foot long, full of bunches of flowers, each standing on a short foot-stalk, and hath in it many stamina or threads of a yellow colour, and seed-vessels of an oval shape, in the middle of which is a small brown oblong seed: All parts of this yield, in breaking, a yellow juice, like common celandine, from which it hath its name, as I suppose. Hernandez calls it *quauhchilli*, sive *Chilli* species, from its sharpness like Indian pepper, and saith it was planted by the Indian kings in their gardens. It is much stronger than English celandine, being very hot and drying. The juice cures tetters and ring-worms, and takes off warts and films of the eyes; but I should not care for using it to the eye, being so very sharp.—Barham, p. 37.

CELERY—See PARSLEY.

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No English Name.

CELOSIA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Miscellanea*.

GEN. CHAR.—Calyx a three-leaved perianth; corolla five-petalled; stamina conjoined to the base by a plaited nectary; capsule gaping horizontally. One species is a native of Jamaica.

PANICULATA. PANICLED.

*Amaranthus fruticosus erectus, spica viridi, laxa et strigosa.* Sloane, v. 1, p. 142, t. 91, f. 1. *Folius oblongis, floribus racemose spicatis, fere sessilibus.* Browne, p. 179.

This plant is common in the lowlands about Spanish Town and Kingston. Stem suffrutescent, prostrate, round, sub-divided, striated; branches diverging; leaves acuminate, petioled, entire, smooth; spikes racemed, axillary, and terminating, short. Flowers distinct, whitish. The calyx consists of five ovate, acute, leaflets, whitish within; there is no corolla, but a cup-shaped, five-cornered nectary, surrounding the germ; to the edge of this the filaments are affixed. The anthers are versatile and purple; germ ovate; style subulate, simple, red; stigma trifid; capsule covered by the permanent calyx, with numerous shining seeds.—Sw.

This shrub has greenish, woody, and small stalks, rising to about two and a half feet high. The leaves are many, smooth, of a dark green colour, placed along the branches without order, on half inch long footstalks. They are an inch long and three-quarters broad, where broadest, a little from the round base, whence they decrease to the point. The flowers stand in spikes at the tops of the branches, about three inches long, are not open, but made up of five leaves, of a yellowish green colour, in the middle of which is a large blackish stylus, which comes in sometime to be a seed vessel or husk, containing several seeds, each of which is scarce discernible to the eye, shining, and of a brown colour, roundish, and hollow on one side like a dish, if viewed by the microscope. It grows by the banks of the Rio Cobre.—Sloane.

CERASEE.

MOMORDICA.

CL. 21, OR. 9.—*Monoëcia syngenesia*. NAT. OR.—*Cucurbitacea*.

This name is derived from the Latin word *mordeo*, to bite, from the seeds having the appearance of being bitten.

GEN. CHAR.—Male calyx a one-leafed, five-cleft, perianth; in the concave part beneath the corolla is a hollow nectareous gland; corolla five-parted, fastened to the calyx, spreading, large, veined, wrinkled; the stamens are three filaments, (five have been observed,) awl-shaped, and short; anthers, on two filaments, bifid, eared at the sides, on the third simple and one-eared only, consisting of a compressed body and a fariniferous line, once reflex. The female calyx and corolla as in the male; the female cup permanent, and crowning the fruit; the filaments three, short, without anthers; the pistil has an inferior large germ; style single, round, trifid, columnar; stigmas three, gibbous, oblong, pointing outwards; the pericarp is a dry pome, opening elastically, three or four-celled, cells membranaceous.

naceous, soft, distant; the fruit twelve furrowed; seeds several, compressed.— Three species of this plant, natives of the East Indies, have been long introduced into this island.

1. BALSAMINA. BALSAMIC.

*Cucumis puniceus*. Sloane, v. 1, p. 128. *Glabra, foliis profunde lobatis, fructu rotundo striis verucosis notato*. Browne, p. 353.

Pomes angular, tubercled; leaves smooth, spreading, palmate.

This is called *smooth-leaved cerasee*, or *male balsam-apple*. It is very common in Jamaica, and has a trailing stalk like those of the cucumber or melon, extending several feet in length, and sending out many side branches, which have tendrils. Leaves smooth, deeply cut into several segments, and spreading like a hand. The fruit is oval, ending in acute points, having several deep angles, with sharp tubercles, placed on their edges. It changes to a red or purplish colour when ripe, opening with an elasticity, and throwing out its seeds. It is famous in Syria for curing wounds. The natives cut open the unripe fruit, and infuse it in sweet oil, which they expose to the sun for some days, until it becomes red; and then preserve it for use. Dropped on cotton, and applied to a fresh wound, the oil they reckon the best vulnerary, next to the balsam of Mecca, having found by experience that it often cures large wounds in three days.

The balsam that exudes, on cutting the full grown unripe fruit, is also used for fresh wounds.

Cerasee is the name that negroes and some others give to a plant growing in great plenty in Jamaica. Its fruit is much like a cucumber, and as big; therefore Sir H. Sloane calls them *cucumis puniceus*; I suppose from its deep red colour, but the leaves are much smaller, jagged, and divided; the fruit generally of the size of a lemon, of a yellowish red without-side, with blunt tubercles; the inside is of a most glorious red colour, having several large red seeds, in bigness and shape of tamarind stones or seeds. I have observed, if you put the point of the smallest pin or needle into any part of the fruit, it will all fly open in quarters, or many parts, turning, as it were, the inside outward, with a sort of gust or explosion, or as if it were sensibly touched.— Some make fine arbours with this plant, it always climbing to any thing it is near, growing so thick you can hardly see through it. Some suck the seeds, having a sweet red pulp about them; but the fruit is very hollow, like pops, and purges excellently well. The negroes cure the belly-ache, by mixing with it Guinea pepper. Both leaves and fruit are a great vulnerary: A decoction or infusion of the roots in water, wine, or broth, wonderfully evacuates watery humours, and prevails against the yellow jaundice, obstructions of the liver, spleen, bowels, and mesentery. The root, powdered and given with cream of tartar (from a scruple to forty grains), doth the same; a syrup of the fruit doth the like. The distilled water from the leaves and fruit, mixed with *sal nitri*, makes a beautiful wash, and is good against the St. Anthony's fire, or any redness of the face; inwardly given, with loaf sugar, it cools and abates the heat of fevers. The oil from the fruit cures burns, and takes away scars.—*Barham*, p. 38.

2. CHARANTIA.

*Subhirsuta; fructu oblongo, tuberculis conico compressis inaequalibus obsito*. Browne, p. 353.

Pomes

Pomes angular, tubercled; leaves villose, longitudinally palmate.

This is called the *hairy cerasee*. Stem round, slender, branched, climbing by lateral tendrils. Flowers sometimes hermaphrodite. Corolla yellow, usually five-parted, but sometimes six-parted. Stamens three, connected. Fruit oblong, bluntly angular, tubercled, drawn to a point at each end, white, yellow, or green, on the outside; within very red and fleshy, one-celled, bursting elastically. Browne observes, that both these plants are frequently cultivated in Jamaica, and thrive very luxuriantly in most of the gardens about Kingston; he also says the leaves boiled, and the decoction of the plant, are equally used to promote the lochia; the first by way of green, the other as an apozem; and are both reckoned serviceable on these occasions.

### 3. LUFFA.

Pomes oblong, grooves like a chain; leaves gashed.

This is called *Egyptian momordica*. The stem is angular, very much branched, climbing by bifid spiral tendrils. Leaves having five or seven sharp angles, the middle one double the length of the others, unequally serrate, veined, wrinkled, on long alternate petioles. Male corollas six-parted, several together; females solitary, five-parted, reflex. Pome a foot long, two inches thick, roundish, usually drawn to a point at each end, hairy, three-celled; with a white flaccid, esculent pulp, of an insipid flavour. Seeds oblong, compressed, smooth. This has been called the *strainer vine*, because the reticulated part of the fruit is sometimes separated from the pulpy, and made punch strainers of.

### No English Name.

### CERBERA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Contorta*.

This name is derived from *cerbereus*, on account of the poisonous qualities of the plants.

GEN. CHAR.—Calyx a five-leaved perianth; corolla one-petalled, funnel-form, contorted; border five-parted; stamens subulate; filaments with erect anthers; the pistil has a roundish germ, filiform style, headed stigma; the pericarp a large drupe; seed a two-celled nut. One species is a native of Jamaica.

### THEVETIA.

*Arborescens foliis lanceolatis, floribus fauce ampliatiss sub-campanulatis*. Browne, p. 181.

Leaves linear, very long, crowded.

This is an elegant shrub, which Browne calls the *narrow-leaved plumeria*, that grows commonly seven or eight feet high, and always full of slender flexile branches; the flowers are yellow, and moderately open below the margin; he observed it grow near Port Maria and Morant Bay. The stem is round, unarmed, abounding in a poisonous milky juice, dividing at top into many weak branches, which are generally simple, loose, round, smooth, covered with scars from the leaves that have dropped; and covered with a green smooth bark, which, as they grow older, becomes rough and changes to a grey or ash-colour. Leaves on very short petioles, scattered at the ends of



of the branchlets, acuminate, very entire, spreading, of a firm consistence, smooth on both sides, of a shining green, but paler underneath; four or five inches long, and half an inch broad in the middle, full of a milky juice, which flows out when they are broken. Flowers large, nodding, yellow, smelling very sweet; corolla contorted.—Nectary converging into a star, in the throat of the tube; filaments short, below the star; anthers ovate-acute; germ five-streaked, surrounded by a yellowish nectareous navel; stigma five-cornered, bifid at the tip; fruit a green oblate, spheroidal, drupe, containing an obscurely four-cornered nut, with a single kernel in it.

CEREUS—See INDIAN FIG.

### CHANGEABLE ROSE.

### HIBISCUS.

CL. 16, OR. 6.—*Monadelphica polyandria.* NAT. OR.—*Columnifera.*

GEN. CHAR.—Calyx a double perianth; outer many leaved, permanent, leaflets linear; more rarely one-leaved, many cleft: inner calyx one-leaved, cup-shaped, half five-cleft, permanent; or five-toothed, deciduous: corolla five-petalled, petals roundish, oblong, narrow at the base, spreading, fastened at bottom to the tube of the stamens; the stamens are many filaments, united at bottom into a tube; at top divided and loose; anthers kidney-form; the pistil has a roundish germ, a filiform style, longer than the stamens, five-cleft at top; stigmas headed; the pericarp is a five-celled capsule, five-valved; partitions contrary, doubled; seeds solitary or several, ovate, kidney-form.

1. MUTABILIS. CHANGEABLE.

*Fruticosus, brachiatus; foliis cordato lobatis; flore variabili.*—Browne, p. 287.

Leaves cordate-five-angled, obscurely serrate; stem arboreous.

This plant has a large and divaricated root, and frequently grows to the stature of a small tree, rising to the height of twelve or fourteen feet. It has a soft spungy stem, which by age becomes ligneous and pithy, sending out branches towards the top, which are hairy, garnished with heart-shaped leaves, whitish underneath, cut into five acute angles in their borders, and slightly sawed on their edges, of a lucid green on the upper side and pale below: the petioles are rough, thick, three or four inches in length.—The peduncles are thicker towards the top, sometimes tinged with red, sustaining large handsome flowers. The single are composed of five petals, which spread open, and are at first white, turn to light flesh colour after they bear the action of the sun for some hours, and contract and close for the night, to be ready for the like changes the ensuing day, they become nearly purple before they fade. It has a double variety, and is a native of the East Indies. It is cultivated in many parts of Jamaica, with much success, on account of the great beauty of its flowers. Browne calls it the *Chinese rose*, which is the following species:

2. ROSA SINENSIS. CHINA ROSE.

Leaves ovate, acuminate, serrate; stem arboreous.

This grows in India to the size of an ordinary tree. The root is large and spreading.

The stem is round, woody, erect; the leaves somewhat resemble those of the vine, cordated at the base and serrated, five-nerved; they stand on long reddish pedicels, and are of a pale green on the upper surface and hoary below. The stipules are in pairs, opposite, at the base of the petioles, linear, acute, deciduous. Flowers axillary, solitary, peduncled, large, of a deep scarlet colour. The peduncles are twice as long as the petioles, round, and straight, thicker towards the top, with a joint towards the middle. This plant is a native of the East Indies, and, being common in China, has for that reason obtained the name it bears. The seeds were first brought by the French to Martinico, and hence it is sometimes called the *Martinico rose*. There are double and single flowering kinds; the seeds of the first frequently produce plants that have only single flowers; but the latter seldom vary to the double kind. The single flowered plant is, however, seldom to be met with. They throw out a great multitude of flowers in perpetual succession. There is said to be a variety with white flowers. This beautiful plant is made into garlands and festoons in China on all occasions of festivity, and even in their sepulchral rites. They are also put to a use which seems little consistent with their elegance and beauty, that of blacking shoes, whence their names of *rosa calceolaria* and *shoe-flower*. The women also employ them to colour their hair and eye-brows black.

See INDIAN SORREL—MAHOE—MUSK OCHRA—and OCHRA.

#### CHASTE TREE.

#### VITEX.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Personata*.

This is derived from the Latin word *victum*, from the great flexibility of the twigs, which makes them fit to bind or tie any thing.

GEN. CHAR.—Calyx a one-leaved, five-toothed, perianth; corolla one-leaved, ringent, border six-cleft; stamens capillary filaments, longer than the tube; anthers versatile; the pistil has a roundish germ, filiform style, the length of the tube; stigmas two, awl-shaped, spreading; the pericarp is a berry or drupe, globular, and four-celled; seeds solitary, ovate. One species is a native of Jamaica.

UMBROSA. SHADY.

*Arboreus, foliis ovatis, crenatis, quinato digitatis; petiolis communibus oppositis, racemis laxis alaribus.* Browne, p. 267.

Leaves quinate, quite entire, smooth on both sides; racemes compound, axillary.

Browne calls this the *larger chaste tree with jagged leaves*, and says it is frequent in St. Mary's, growing generally to a very considerable size. It is easily distinguished by its crenated leaves, bunchy flowers, large berries, and the variegated under lip of its blossoms, the main division of which is the figure of a heart. The style is bifid, and each part pretty short.

The *agnus castus*, an East Indian species of this genus, has also been introduced. This is the chaste tree so famous among the ancients, as an imaginary specific for the preservation of chastity; and is distinguished by the elegance of its foliage.

CHAW.

## CHAW STICK.

## GOUANIA.

CL. 23, OR. 1.—*Polygamia monoecia.* NAT. OR.—*Rhamni.*

This is so named in honour of Antoine Gouan, M. D. author of some celebrated botanical works.

GEN. CHAR.—*Hermaphrodite flowers.*—Calyx a one-leaved, superior, funnel-form, five-cleft, perianth; tube permanent, segments ovate, acute, spreading, deciduous; there is no corolla; the stamens are five filaments, subulate, length of the calyx, and alternate with the segments; anthers roundish, incumbent, veiled; veil like a cowl, elastic; the pistil has an inferior germ, subulate style, half three-cleft, and obtuse stigmas; the pericarp is a dry fruit, three-sided, divisible into three seeds; seeds three parts of the fruit, roundish, inclined to three-sided, two-winged. *Males on the same plant.*—Calyx, corolla, and stamens, as in the hermaphrodite; stigmas obscure or none. There is only one species.

DOMINGENSIS.

DOMINGO.

*Radix fruticosa lutea, glycyrrhizæ similis, cortice fusco dentibus mundificandis inserviens.* Sloane, v. 2, p. 185, t. 232, f. 2, 3.—*Sarmentosus foliis ovatis venosis, capsulis trigonis racemosis.*—Browne, p. 172.

This plant is very common in Jamaica, has a shrubby stem, which climbs like hops by axillary tendrils. The leaves are ovate, or oblong-ovate, acuminate or blunt, with a point, unequally serrate-toothed, or slightly crenate only, smooth, deep green, alternate, petioled, two inches long; racemes furnished with one or two leaflets; the male flowers have no pistil whatsoever, but there are three or four flowers of an hundred that have a style without any germ. The bark and wood of this plant is of a pleasant bitter taste, and, being of a fibrous texture, is cut into short pieces, and very generally converted into tooth brushes, which it is well adapted for, as it really whitens and preserves the teeth better than any tooth powder. The stalk is seldom thicker than the little finger, having a brownish bark, and yellowish wood, and is very tough and flexible. The juice raises a considerable ferment in the saliva, and a piece of the stalk, put into any liquor and agitated, occasions fermentation in the liquor, as does that of the common green withe. It is generally put in those cool-drinks often used in Jamaica, to which it yields an agreeable flavour. A decoction of the roots, like that of many other bitters, is useful in dropsical cases; and the whole plant is reckoned a good antiseptic.

Dr. Wright says that this withe, chewed with the juice and swallowed, is an agreeable stomachic, and useful for promoting an appetite, or removing pains in the stomach from relaxation. What, however, is often called pain in the stomach, is an affection of the liver, which should carefully be distinguished, as in this case all tonics or bitters do mischief. If the liver be diseased, we have a sovereign remedy in calomel. One grain, for six nights running, is generally sufficient, then stopping for a few nights, and beginning as before for a second or third time, is generally sufficient to remove the complaint.—*Wright.*

*Atto.*—I never could find any other name for this plant, and that I had from a negro. I take it to be the same plant that Sir H. Sloane calls, in his catalogue of Jamaica  
A a maica

maica plants, *radix fruticosa glycirrhizæ similis cortice fusco, &c.* and indeed the root to the sight much resembles English liquorice, but of a bitterish taste. It hath leaves like the dogwood tree, but is a small shrub, hardly able to support itself, and generally joins to another plant, although it doth not climb about it; it hath a short pod, which when ripe is very black and full of sweet pulp, like *cassia fistula*.

The negroes cleanse their teeth with this root; and they also grind it with water like a paste, and plaster their bodies all over with it in most feverish heats, head-aches, and cholics; and have such an opinion of it, that if they find not a present relief by it, they give themselves over. A certain gentleman recommended it to me as an excellent remedy in the dry belly-ache; and I happening to have a servant seized with it, to that degree as threw him into convulsion fits, I thought fit to make use of it, by decocting the root, and giving him about half a pint at a time, warm, three or four times a day; which first eased him of all his pains, afterwards wrought gently downwards, and, in three or four days, he said he thought himself as well as ever he was in his life, and so continued.—*Barham, p. 9.*

CHE—See OLDENLANDIA.

## CHERIMOYA.

## ANNONA.

CL. 13, OR. 7.—*Polyandria polygynia.* NAT. OR.—*Coadunatae.*

GEN. CHAR.—See Alligator Apple, p. 11.

## TRIPETALA.. THREE-PETALED.

Leaves ovate, acute, pubescent beneath; flowers three-petaled; petals lanceolate, coriaceous, tomentose.

This is a native of South America, and was introduced by Mr. East. It grows to a very large branchy tree. Leaves bright green, and longer than any other species of this genus. The fruit is oblong, scaly on the outside, and of a dark purple colour when ripe; the flesh is soft and sweet, having many brown seeds intermixed with it, which are very smooth and shining. It is esteemed a delicate fruit.

See ALLIGATOR APPLE—CUSTARD APPLE—SOUR and SWEET SOPS—and NUTMEG, AMERICAN.

CHERRY, BIRD—See WEST INDIA LAUREL.

CHERRY, COWHAGE—See BARBADOES CHERRY.

## CHICKWEED.

## HOLOSTEUM.

CL. 3, OR. 3.—*Triandria trigynia.* NAT. OR. *Carryophyllæ.*

GEN. CHAR.—Calyx a five-leaved perianth, leaflets ovate, permanent; corolla five-petaled, petals two-parted, blunt, equal; stamens are three filaments, shorter than the corolla, with roundish anthers; the pistil has a roundish trilobous germ, styles three, filiform, stigmas bluntish; the pericarp is a one-celled capsule, sub-cylindric,

sub-cylindric, gaping at the tip; seeds very many and roundish. Two species are natives of Jamaica.

1. CORDATUM. HEART-LEAVED.

*Alsine americana nummulariæ foliis.* Sloane, v. 1, p. 203. *Foliis orbiculatis oppositis, racemis laxis terminalibus remotis.* Browne, p. 139.

Leaves sub-cordate.

Stem decumbent, creeping, somewhat rigid at bottom; leaves opposite, orbiculate-cordate, sub-sessile; stipules, four on each side, membranaceous; peduncles lateral, elongated, ascending, seven-flowered, one in the middle, and three on each side, from a peduncle farther branched; pedicels, when mature, viscid, dropping with the fruit; calycine leaflets oblong, acute, concave; petals white, upright, lanceolate, shorter than the calyx; styles divaricating.

This plant is common in Jamaica. Browne calls this the *larger American chickweed*, and says that it grows in tufts, and seldom rises above ten or twelve inches from the ground; that the smaller birds feed much upon the seeds, but that it is seldom put to any other use, except that large wads of the fresh plant, heated over a gentle fire, are sometimes applied to hard and painful swellings, in order to relax the parts and dispose the obstructions to a resolution. It is also recommended as an emollient fomentation.

2. DIANDRUM. TWO-STAMENED.

*Diandrum petalis integris, foliis minoribus obovatis; petiolis et caulibus marginatis.*

Stems procumbent, very rigid; leaves roundish; flowers two-stamened.

Browne calls this the *smaller chickweed*, and says it is not common in Jamaica; the two filaments are placed in the same line with the petals of the flower, which are five in number, as well as the divisions of the cup. The plant is very small, and seldom rises above six or seven inches from the ground.

## CHICKWEED, AFRICAN.

## MOLLUGO.

CL. 3, OR. 3.—*Triandria trigynia.* NAT. OR.—*Caryophyllei.*

GEN. CHAR.—Calyx a five-leaved perianth, leaflets oblong, from upright spreading, coloured within, permanent; there is no corolla; the stamens are three filaments, bristle-shaped, shorter than the corolla, approximating to the pistil; anthers simple; the pistil has a superior germ, ovate, three-grooved; styles three, very short, stigmas blunt; the pericarp is an ovate capsule, three-celled, three-valved; seeds numerous, kidney-form. Two species are natives of Jamaica.

1. VERTICILLATA. VERTICILLATED.

*Minima repens, foliis linearibus verticillatis, floribus quinariis pedunculatis confertis.* Browne, p. 139.

Leaves in whorls, wedge-form, acute; stem subdivided, decumbent; peduncles one-flowered.

This is a trailing plant, spreading out eight or nine inches every way, and having six or seven small leaves at each joint, spreading out in form of a star. Flowers small, like those of chickweed, one on each footstalk, succeeded by oval capsules, filled with small seeds, about twelve in each cell. Browne says this plant is pretty common in the dry savannas in Liguanea; its leaves and branches are very small; that the stalk seldom runs above six or eight inches from the root; that the flowers are generally four or five together, and grow on single tufts on the sides of the whorls.

2. BELLIDIFOLIA. WHITE-FLOWERED.

*Alsini affinis, foliis bellidis minoris, caule nudo.* Sloane, v. 1, p. 203, t. 129, f. 2.

White-flowered, with naked stalks.

This species of *mollugo* is not mentioned by Linneus, who, it is remarkable, never quotes Sloane, and has been overlooked in the latest botanical works. Sloane takes particular notice of it, and has given a correct figure. It is a rare plant. The leaves of the cup perform the office of petals, they are white above and expanded, but as the fruit increases they become green and connivent, closely embracing the capsules, whose valves, being very thin and tender, they help to strengthen. This little plant flourishes in September, the root is perennial, the leaves are sweet in taste as liquorice, but with some allay of bitterness. Sloane describes it as follows: It hath a crooked white root with many hairs. The leaves lie on the surface of the earth, spread round the root, being about an inch long, from a narrow beginning increasing by degrees to a round end, not unlike the leaves of the lesser daisy. From the middle of the leaves rises a stalk or two, four or five inches long, without leaves, being branched towards the top, the branches divided into small twigs, each whereof sustains a small head, inclosed by four whitish capsular leaves, having within them a round whitish seed vessel, full of roundish black seeds, very small. It grew in sandy places of the town savanna towards Two Mile Wood.

CHINA ROOT.

SMILAX.

Cl. 22, OR. 6.—*Dioecia hexandria.* NAT. OR.—*Sarmentaceæ.*

GEN. CHAR.—Male calyx a six-leaved perianth, spreading, bell-shaped; leaflets oblong, approximating at the base, bent back, and spreading at the tip; there is no corolla except the calyx; the stamens are six simple filaments, with oblong anthers. The female calyx as in the male, deciduous; there is no corolla; the pistil has an ovate germ, three very small styles, stigmas oblong, bent back, pubescent; the pericarp is a globular three-celled berry; seeds two, globular. Two species are natives of Jamaica.

1. CHINA.

*Smilax aspera, fructu nigro, radice nodosa, magna; lesi, farinacea, China dicta.* Sloane, v. 1, p. 231, t. 143, f. 1. *Sarmento tereti, inferne aculeato; foliis subrotundo cordatis, trinerviis; petiolis clavicula una vel atera refertis.* Browne, p. 359.

Stem

**Stem prickly, roundish ; leaves unarmed, ovate-cordate, three or five-nerved.**

This plant is frequent in the more cool inland parts of Jamaica. It grows wild, rising from a thick porous root, and climbs by a pretty slender rigid stem, to the top of the tallest trees in the woods ; this is adorned with a few prickles towards the bottom, divides into many branches at the top, and throws out its winding tendrils from the foot-stalks of the leaves. The root is commonly used in Jamaica, and observed to answer as well as that from the East Indies. It is of a sheathing nature, and a very fit ingredient in all diluting apozems. The plant may be easily propagated so as to supply the European markets, if the medicine was in any general repute ; but, at present, what grows wild is more than sufficient to supply the inhabitants, and serves frequently to feed the hogs, which are said to live chiefly upon it, when there is a scarcity of wild fruit.—*Browne*.

This root grows in great plenty in America. It hath a root as big as one's arm, is crooked and jointed, with knobs at every joint like some canes. The stems are very tough, and when young of a green colour, very full of prickles like a rose bush or brier, but when older has little or no prickles, and will grow to be bigger than a man's thumb, and sometimes ten or fifteen feet high. The leaves are like the *smilax aspera*, or sarsaparilla ; they are cordated, smooth, of a very dark green, with nerves like those of the English plantain-leaf. At the end and between the twigs come out the flowers, several together, but from one centre, standing on an half-inch pistil, of an umbel fashion ; each hath six petals, with very small green apices, standing round a green short stylus ; after, follow so many blackish berries, round, and of the bigness of those of ivy, having an unsavoury purple pulp, with a purple stone as big as that of the haw. Sometimes a gum is to be found, which the Indians call *tzitil*, which they chew to strengthen or fasten their teeth. I have seen a sort much whiter, without and within, than the common sort. The use and virtues of this root are so well known for and in venereal cases, as I need not give any further description of it ; only just mention what use Dr. Trapham made of it in such cases, who practised many years in Jamaica ; but he first gave the following electuary :

Take pulp of tamarinds and cassia fistula, of each half a pound ; juice of semper vive, three pounds ; small red pepper or capsicum, dried, one scruple ; Winter's cinnamon, one scruple and an half ; of melasses, clarified with the white of an egg, a pound and an half. Put all these into an earthen pot, which place in the sun, stirring the mixture with a wooden spatula, two or three times a day ; let it stand till it thickens to a due consistence of a soft electuary, which keep for use as a general purge. The dose, from half an ounce to an ounce and an half ; in clysters, two ounces. Let the patient take half an ounce of this, or two good broad knife-points full, in the morning fasting, and as much at night going to bed, two hours after having eaten some spare supper ; continue every other or third day till the gonorrhœa ceases. The dose may be lessened according as it works ; and those days they do not purge at night, let them take a drachm of china-root in powder, drinking the following decoction or infusion of china-root, warm, to sweat with ; the drink ought to be made new every day, without being fermented with sugar or age. The water is only to be boiled as that for tea ; then so much china-root, sliced, added thereto as may make it of a claret colour ; there can be no excess in the root, neither need there to be added, save for palate sake, a little sugar, for it is better without ; let him drink thereof every night in bed plentifully, about two quarts, the better to sweeten the sour juices, which china-root powerfully

fully doth in these cases as well as in others, such as gouts, tertians, hectics, consumptions, &c. and then, to complete the cure and strengthen the spermatic vessels, let them take hog-gum in pills for some time.

I am very well assured, that this West India china-root is in every respect as efficacious and as valuable as that from the East Indies; but the great difficulty is how to preserve it from the worms; for, in a month or two, it will be bored, and all the farina, or mealy part scooped out, by a large white maggot with a red head, that breeds in it. I have tried several ways to prevent it; the only way was, to trim it well of all its soft knobs, and then to bury it in white-lime; or in the following manner: Make a brine with salt and water, strong enough to bear an egg; then put in a fourth part of chamber-lye, and a reasonable quantity of quick-lime, which mix, and boil together about half an hour; then take it off, and put china-root into the liquor; let it remain there until it be thoroughly scalded or parboiled; then take it out, and dry it in the hot sun, and then no worms will take it; and if a little of the red colour comes out of the root it is never the worse for sale (so that you can but keep the worm from it), for the palest china-root is now become the most valuable.—*Barham*, p. 40, 198.

The root has a reddish brown skin, and is more mealy than fibrous. It should be chosen full, heavy, and compact, and free from rottenness. A strong decoction of it is an admirable astringent bath for sores, when the inflammation is removed. If it is found to have a tendency to irritate the sore, a handful of oil nut leaves may be added to the decoction.

## 2. LAURIPOLIA. BAY-LEAVED.

*Aspera, foliis trinerviis oblongis, petiolis bicalaviculatis.* Browne.

Stem prickly, round; leaves unarmed, ovate-lanceolate, three-nerved.

Browne calls this the *prickly smilax*, with slender roots, and says it is pretty like the foregoing, but the roots are small, and divided into a number of slender branches.

—See SARSAPARILLA.

—CHINESE ROSE—See CHANGEABLE ROSE.

CHIVES—See ESCHALOT.

## CHO-CHO.

## SECHIUM.

CL. 21, OR. 9.—*Monocotyledon syngenesia.* NAT. OR.—*Euphorbia*.

This is supposed to be derived from a Greek word, signifying to fatten, as the fruit is used to fatten hogs.

GEN. CHAR.—The calyx of the male flower is one-leafed, half five-cleft, (frequently six or seven clefts), spreading, segments of the border lanceolate, flat, acuminate: the corolla is one-petaled, tube the size and figure of the calyx, and fastened to it; border five-cleft, (often six or seven clefts), segments triangular, flat, acute, more than double the length of the calyx, spreading: the nectary ten hollows, two at the foot of each segment of the corolla; the stamens are five filaments, connected into an upright cylinder, five-cleft at top, spreading very much; anther



anther on the top of each filament a line creeping twice downwards and once upwards, fariniferous. Females on the same plant: calyx as in the male, placed on the germ by a pedicel, deciduous; corolla as in the male, but the hollows or pits bigger; the pistil has an ovate germ, tomentose, five-grooved, inferior; style cylindrical, erect, one-half the length of the calyx; stigma very large, peltate-reflexed, with the margin five-cleft; the pericarp very large, ovate-turbinate, five-grooved, fleshy, unequally gibbous at the top, muricated with harmless prickles, one-celled above; seed one, subovate, plano compressed, fleshy bilamellate, blunt at each end. There is only one species.

EDULE. EATABLE.

*Folii cordato angulatis, racemis minoribus ad alas.* Browne, p. 355.

This genus is evidently *monœcia pentandria*. It has the habit of the cucumber and melon tribe, and climbs like them by tendrils; leaves cordate-angular, rugged on the upper surface, with the angles toothed and acute, alternate on a smooth petiole; flowers small and scentless, pale yellowish; the males are many flowered peduncles; the females one or two only on a peduncle from the same axil; the fruit green and shining on the outside; whitish and fleshy within, differing in size, and singular in structure; the seed is green and naked, and, in large fruits, an inch long, it is placed near the apex of the fruit, and when ripe, protrudes itself and many fibres from the fruit, which drop into the earth; between the lamellæ it puts forth a leafy stem, and then the fruit gradually putrefies. The moisture of this fruit itself is sufficient to vegetate the seed and to afford it nutriment, but the growth is quicker if the whole be covered with earth. This fruit is an agreeable and wholesome vegetable, but being rather of a watery insipid taste, is much improved by lime juice, by salt, or spicy ingredients. Mixed with lime juice and sugar it is a good succedaneum for apple sauce. The vine bears fruit all the year long, and makes very good arbours, as they run and spread much. The root of the old vine is something like a yam, and on being boiled or roasted, is farinaceous and wholesome. The seeds, or hearts, are very good if taken out after the fruit is boiled and fried with butter. The fruit is also much coveted by hogs, and greatly helps to fatten them.

#### CHOCOLATE-TREE.

#### THEOBROMA.

CL. 18, OR. 1.—*Polyadelphia decandria.* NAT. OR.—*Columniferae.*

This generic name is derived from a Greek word, signifying the food of the gods.

GEN. CHAR.—The calyx is a five-leaved perianth, leaflets lanceolate, acute, spreading, deciduous; the corolla has five petals, smaller than the calyx, claws wide, arched, concave like a helmet, emarginate at the top, scored internally with a thick triple line, inserted into the nectary at the base; borders roundish, acuminate, spreading, each narrowed at the base into a small claw, which is from upright recurved, and fastened into the claw. The nectary is a short little pitcher, putting forth five little horns, which are awl-shaped, long, erect, acuminate, bent in and converging, decurrent along the pitcher. The stamens are five filaments, filiform, erect, bent outwards at top, lying within the claws of the petals, growing externally to the nectary, alternate with and shorter than the horns; anthers on each filament two, one on each side at the tip, verti-

cal, one cell superior, the other inferior; the pistil has an ovate germ, a filiform style a little longer than the stamens; stigma five-cleft; the pericarp is on oblong capsule, coriaceous, unequal, five cornered, five-celled, valveless, not opening; the seeds many, sub-ovate, nestling in a buttery pulp, fastened to a central columnar receptacle. There is only one species, the

CACAO.

*Cacao.* Sloane, v. 2, p. 15, t. 160. *Fructu ovato-acuminato, subverrucoso, decem sulcis longitudinalibus subarato.* A variety:—*Fructu subrotundo, subverrucoso, decem sulcis subarato.* Browne, p. 306.

The *cacao* or chocolate tree grows in a handsome form to the height of twelve or sixteen feet; the trunk is upright, and about as high as a man before the head spreads out; the wood is light and of a white colour, the bark is brownish and even. Leaves lanceolate oblong, bright green, quite entire, alternate, from nine to sixteen inches long, and three or four inches wide at most, on a petiole an inch in length, and thickened at both ends; peduncles slender, about eight or ten together, chiefly from the scars of the fallen leaves, one of them only for the most part fruitful, the rest abortive; flowers small, reddish, inodorous. Fruits smooth, yellow, red, or of both colours, about three inches in diameter; rind fleshy, near half an inch in thickness; flesh coloured within; pulp whitish, the consistence of butter, separating from the rind in a state of ripeness, and adhering to it only by filaments, which penetrate it and reach to the seeds; hence it is known when the seeds are ripe, by the rattling of the capsule when it is shaken. The pulp has a sweet and not unpleasant taste, with a slight acidity, and is sometimes sucked and eaten raw. It may be easily separated into as many parts as there are seeds, to which it adheres strongly, and they are wrapped up in it, so that each seed seems to have its own proper pulp. The seeds are about twenty-five in number; when fresh they are of a flesh colour, they quickly lose their power of vegetation, when taken out of the capsule, but, kept in it, preserve that power for a considerable time. The tree bears leaves, flowers, and fruit, all the year through; but the usual seasons for gathering the fruit are June and December.

This tree is carefully cultivated in all the French and Spanish islands and settlements in the warmer parts of America. This was formerly the case also in Jamaica; but at present we have only a few straggling trees left as monuments of our indolence and bad policy. This tree delights in shady places and deep valleys. It is seldom above twenty feet high. The leaves are oblong, large, and pointed. The flowers spring from the trunk and large branches; they are small and pale red. The pods are oval and pointed. The seeds or nuts are numerous, and curiously stowed in a white pithy substance. The cacao nuts being gently parched in an iron pot over the fire, the external covering separates easily. The kernel is levigated on a smooth stone; a little annatto is added, and, with a few drops of water, is reduced to a mass, and formed into rolls of one pound each. This simple preparation is the most natural and the best. It is in daily use in most families in Jamaica, and seems well adapted for rearing of children.—*Wright.*

This beautiful plant and profitable tree grew once in such plenty in Jamaica, that they valued themselves upon it, and thought they were or should be the richest people in the world; but they soon saw themselves deceived; for a blast at once came upon the

the trees and destroyed them all, and few or none could ever be got to grow there since; what do grow are generally in plantain walks, or among shady trees, and in bottoms or vallies sheltered from the north winds. This tree grows in bigness and much resembling the heart-cherry tree, the boughs and branches beautifully extending themselves on every side, their leaves being much of the same shape; the flower is very beautiful, and almost of a saffron colour; the fruit proceeds from the body (as in the calabash), and shall be full almost all the way from the bottom up to the branches, which are also full of fruit, which is first green, and, as it increaseth its bigness, changes its shape and colour, until they are thoroughly ripe. I have seen two sorts; one very large, as big and almost in shape of a cucumber, but pointed at the end, and of a most delicate yellow or lemon colour, with a little red blush of one side when ripe; another sort, not so big, of a fine blueish red, almost purple, with reddish or pink colour veins, especially on that side next the sun; they have on the outside ridges and furrows, with smooth bunches or knobs, as cucumbers have. They are ripe and fit to gather in January and in May, having two crops or bearings in a year. The external husk or rind, which is pretty thick, being broke or cut, there appear the kernels adhering to one another by soft filaments, and inclosed in a white pulpy substance, soft and sweet, which some suck when they take them out of their shells, which contain ten, twenty, and sometimes thirty nuts, almost like almonds. There is much difference in their largeness and goodness; those at Carpenter's River are the largest, those brought from the coast of Caraccas next, the smallest are those of Martinico. They are cured in the sun upon cloths or blankets. That which we make our chocolate of is the inside of the nut, encompassed with a thin shell or case, which, when taken off, the dry and hard substance looks of the colour of a kidney bean, with crannies or crevices between them. They are very apt to mould and decay, if they are not well cured; and, if right good, they are plump, smooth, and oily, and of a bitterish taste when raw. The oil of this nut is the hottest of any thing known, and is said to recover cold, weak, and paralytic limbs, and to smooth the skin. This nut is very nourishing, as is daily experienced in the West Indies, where many creoles live in a manner wholly upon chocolate. The way of making it is so well known that I need not describe it.—*Barham, p. 26.*

This tree grew once so plentifully in Jamaica, that the inhabitants flattered themselves it would become the source of inexhaustible wealth to them. In 1671 there were sixty fine walks in bearing, and many new ones in cultivation; but some years afterwards they were all destroyed at once, as it is said, by a blast which pervaded the whole island; so that they were never afterwards recovered; and at present there are but very few; the greatest discouragement in going upon this article being the extreme tenderness of the young plants, and the length of time they require to come to maturity; which most settlers are too sanguine and impatient to wait for, but rather apply to other commodities, which make a quicker return, although it is certain that a good cacao walk, once established, is far more profitable, and demands fewer labouring hands than almost any other marketable West India product. There are many trees still in the island, scattered about in the woods, and found chiefly in rich cool bottoms, that are sheltered from the winds. As the cacao is a very capital article in trade, and may be produced as such in this island, I shall lay down the best rules for the culture of it that I have been able to meet with.

The most proper soil for the plants is a moist, rich, and deep earth; for they generally send forth one tap root, which runs very deep into the ground; so that, whenever

they meet with a rocky bottom near the surface they seldom thrive, nor are long lived. A rich glade of brick mould near water is perhaps the best situation of any. Before the plantation is begun, the ground should be well prepared by digging it deep, and clearing it from roots of trees and noxious plants. When the ground has been thus prepared, the rows should be marked out with a line. Some of the largest, finest cods, full ripe, are then to be selected; and, after being kept two or three days from the time of their gathering, they are opened, the nuts taken out, and thrown in a small vessel of water; such as swim are to be rejected; the others are to be washed clean from the pulp, the outer skin taken off, and they are suffered to lie in shallow water, till they appear just ready to sprout. A hole is then made about one foot diameter, and six inches deep, in the ground prepared for their reception. A plantain leaf is laid in the hole, so as to retain a length at one end of about eight inches above ground; the mould is lightly rubbed into the leaf, till the hole is filled; and the nuts are afterwards set triangularly in it, three in a hole, at two inches depth, care being used to place them with their ends perpendicular; they are to be covered with mould, loosely shaken over, and the extremity of the plantain leaf folded down, and kept in that position, with a small stone laid upon it. In about eight or ten days time the plants will appear above the mould; the plantain leaf is then raised, and some thatch tree, or other strong leaves, are set round, to shade and protect the young plants from the sun. Small bundles, of about eighteen inches, made in basket work, or reeds bundled together, would perhaps be preferable, as they are fixed more firmly by their stalks in the earth, so as not easily to be thrown down by the wind, and husk off the seed leaves of the plants; for these are only the tender divided lobes of the kernel, and the loss of them would wholly put an end to their further growth. These screens are continued about six months, after which the Spaniards take a branch of coral bean tree\*, and set it S. S. W. (in Jamaica it should be N. N. E.) at a small distance from the plants, and intermixed between the rows. These slips will grow up with the cacao, and defend it from blowing violent weather. The young plants are susceptible of injuries from strong winds, a too hot sun, or great droughts, so that they cannot be too well secured against such accidents. For this reason, the most sheltered situation must be chosen for them. The winds most to be feared in Jamaica, are the N. E. S. E. and southerly. Some defend the young plants, by planting plantain suckers about two months, or cassada six weeks, before the seeds are set. They plant the nuts in the rainy season, or, at least, in cloudy weather, or when rain is expected; and, in case the weather proves too dry and scorching after the cacao makes its appearance above ground, they contrive to water it, by laying pieces of rag, cotton, or even weeds†, thoroughly wet, gently round the stem, and let them rest there, till the earth has absorbed a considerable portion of moisture; a watering pot, with a rose head of very small holes, would no doubt be less troublesome, and perform this operation much better; but the water used for the purpose should be taken from a river, and suffered to stand for some hours in a tub or cistern previous to its being used. Plantain trees afford the most natural and agreeable shade for these plants, while very young; but, as they rise, they should be furnished with a more substantial defence against the inclemencies of the weather, till they attain to full perfection; and it ought even then to be removed with precaution. If the walk is extensive, a few large timber trees may be left on the outline or skirts, here and there, to break the force of the wind. The Spaniards set orange-trees, but they

\* See Bean or Coral Tree.

† See Moraw Weed.

they are, I think, too slow in their growth. I have seen the horse cassia and mammees used for this purpose; and they seem better adapted, from the largeness of bulk, and thick shady leaves.

When the cacao is six months old, the planter, from this period, must not be too fond of cleaning the walk from grass and herbage; because they keep the ground cool; but all creeping climbing plants, and such weeds as grow high enough to overtop the cacao, should be destroyed. The distance for laying in the seeds may be about sixteen or eighteen feet from tree to tree. The reason for putting in three seeds is because they seldom all succeed; or, if all grow, they will not all be equally vigorous; when, therefore, they are about eighteen inches high, one of the weakest and most unpromising of the three may be drawn up and thrown away, care being taken not to injure or disturb the roots of the two remaining. It is found by experience necessary to plant the seeds where the trees are to remain; for the transplanted trees will never thrive, nor bear well, on account, as is supposed, of the tenderness of the tap-root, which, if it be the least injured, will bring on a decay of the tree.

In two years time, the plants, having grown to the height of about five feet, will begin to flower; these first blossoms are always plucked off; for, if suffered to remain, and produce fruit, the vigour of the trees will be greatly impaired, and they will never bear well afterwards. Their fruit is not allowed to remain for maturity till the third year, and then only so much as seems proportioned to the strength of each tree. By these precautions they will afterwards yield a larger, better-nourished fruit, and hold their vigour much longer. In the fourth year they are permitted to bear a moderate crop, but some flowers are generally pulled off from those that appear too weak, in order that they may recover their strength, before they are old. When planted in a good soil, and properly managed, they will continue vigorous and fruitful for thirty years. They bear two crops a year; the greatest in December or January, the other in May; and from the time when the flowers drop off, to the maturity of the fruit is about four months. The time of maturity is known by the yellowness of the pods, and the rattling of the nuts, when the pods are shaken. The latter are then plucked, the nuts picked out, and leaving the pulp, if any remains upon them, they are exposed every day to the sun, for a month, upon mats, blankets, or skins.\* It is best not to wash off the pulp, as it makes them keep the longer. The pods contain no certain number; they have from ten to twenty and even thirty nuts; but this depends chiefly on the right training them during the first three or four years of their growth. When thoroughly cured or dried, they are ready for the market.

After a walk is once established it renews itself, the roots sending out suckers, to supply the place of the old stocks, when decayed or cut down.

The produce of one tree is generally estimated at about twenty pounds of nuts. The produce *per* acre in Jamaica has been rated at one thousand pounds *per* annum, allowing for bad years. In poor soils, and under bad management, the produce *per* tree rarely exceeds eight pounds weight. The chemical oil extracted from the nuts is extremely hot, and esteemed a good embrocation in paralytic cases; the Mexicans are said to eat the nuts raw, to assuage pains in the bowels.

The chocolate, so much and so justly preferred by the West Indian natives to most other aliments, is highly restorative, inasmuch, that one ounce of it is said to nourish as much as a pound of beef. It is esteemed in all countries where it is known, and is

B b 2

found

\* It is usual first to lay the pods in heaps to sweat for three or four days before they are opened.

found a suitable part of diet for all ages, but in particular agreeable to infants, old persons, valetudinarians, and such as are on the recovery from sickness; and, prepared with milk, it is highly approved of in consumptive habits. From what has been premised it appears that this is not a plant which can be every where cultivated. It will not thrive in the dry low parts of the South side, nor on elevated or rocky spots in the mountains. It requires a flat, moist soil, well sheltered by surrounding heights; which occasioned Sir Hans Sloane to remark, "that it is but ill living where there are good cacao walks;" for which moist, unventilated places are, without doubt, the most unwholesome for mankind to reside in. Yet, where such glades or spots are found, they certainly cannot be turned to any sort of culture that will yield more profit; and it does not follow that because a settler is possessed of such a spot, he is therefore to live upon it; since the situation supposes the neighbourhood of higher spots more proper for constant residence.—*Long, p. 695.*

The cacao or chocolate nut, a production equally delicate, wholesome, and nutritive, is a native of South America, and is said to have been originally conveyed to Hispaniola from some of the provinces of New Spain, where besides affording the natives an article of nourishment, it served the purpose of money; and was used by them as a medium in barter; one hundred and fifty of the nuts being considered of much the same value as a *ryal* by the Spaniards. From this circumstance it seems probable, that if the ancient inhabitants of South America were emigrants from Europe or Asia, they must have detached themselves at an early period, before metals were converted into coins, or from some society which had made but moderate advances in civilization.

The fifth year the tree bears, and the eighth attains its full perfection. It is obnoxious to blights, and shrinks from the first appearance of drought. It has happened that the greatest part of a whole plantation of cacao trees have perished in a single night, without a visible cause. Circumstances of this nature, in early times, gave rise to many superstitious notions concerning this tree, and, among others, the appearance of a comet was always considered as fatal to the cacao plantations.

In spite, however, of the influence of comets, and notwithstanding the care and precaution that are requisite in the first establishment of a cacao plantation, it is certain that the cultivation of this plant was both extensive and successful in the British sugar islands, for many years after they had become subject to the British government. Blome, who published a short account of Jamaica in 1672, speaks of cacao as being at that time one of the chief articles of export: "There are" says he, "in this island, at this time, about sixty cacao walks, and many more now planting." At present, I believe, there is not a single cacao plantation from one end of Jamaica to the other. A few scattered trees, here and there, are all that remains of those flourishing and beautiful groves which were once the pride and boast of the country. They have withered, with the indigo manufacture, under the heavy hand of ministerial exaction. The excise on cacao, when made into cakes, rose to no less than twelve pounds twelve shillings *per* hundred weight, exclusive of eleven shillings and eleven pence half-penny, paid at the custom-house; amounting together to upwards of four hundred and eighty *per cent.* on its marketable value!—*Edwards.*

CHOISEUL PEA—See BASTARD SENSITIVE.

CHRISTMAS.

## CHRISTMAS GAMBOL.

## CONVOLVULUS

CL. 5, OR. 1.—*Pentandria monogynia*.NAT. OR.—*Campanaceæ*.

GEN. CHAR.—See BINDWEEDS, p. 88.

## POLYANTHOS.

*Convolvulus major polyanthos, longissime latissimeque repens, floribus albis minoribus odoratis.* Sloane, v. 1, p. 153, t. 97, f. 2. *Polyanthos glaber undique repens, racemis subcomosis sparsis et alaribus, capsulis monospermis.* Browne, p. 154.

This plant covers sometimes a great many trees, and sometimes pastures for a great breadth. It has a broad or compressed, flat, long, cornered root, of a brownish colour, from whence issue many strings. The stalks are whitish, broad, smooth, having several round eminences on their surface, putting forth branches adorned with leaves at an inch and a half distance; they are shaped like a heart, an inch and a half long, on an inch long peduncle, and an inch broad at the round base, where broadest, smooth, soft, and of a darkish green colour. The flowers come out in the branches in great numbers, on inch long footstalks, they are monopetalous, bell-fashioned, white, small with respect to the plant, and smelling very sweet. After each of these flowers comes one large oval seed, like brown velvet, solid, inclosed in a brown membranaceous, hairy seed vessel having five brown leaves, standing out at every side under it like the rays of a star. It grows on the plain grounds near the river side by the town of St. Jago de la Vega, and in other places of the island, very plentifully. It flowers in May and December, when the humming birds are very busy about it, feeding on the farina of the flowers. The smell of the flower is somewhat like that of the narcissus.—Sloane.

All the parts of this plant are smooth.

See BINDWEEDS—JALAP—INDIAN-CREEPER—PURGING SEA-BINDWEED—SCAMMONY—SWEET POTATOE.

## CHRISTMAS PRIDE.

## RUELLIA.

CL. 14, OR. 2.—*Didynamia angiospermia*.NAT. OR.—*Personate*.

This is so named in honour of Joannes Ruellius, a learned physician of Paris, who died in 1537.

GEN. CHAR.—Calyx a one-leafed, five-parted, permanent perianth, having linear segments, acute, straight; the corolla one petaled, irregular, with a patulous inclined neck; border five-cleft, spreading, blunt; with two upper segments more reflexed; the stamens are four filaments, placed where the tube widens, approximating by pairs; anthers scarcely longer than the tube; the pistil has a roundish germ, a filiform style the length of the stamens, a bifid acute stigma, the lower segments rolled in; the pericarp is a round capsule, acuminate both ways, two-celled, two-valved, opening elastically by the claws; partition contrary; seeds a few roundish, compressed. Four species are natives of Jamaica.

## 1. PANICULATA. PANICLED.

*Speculum veneris majus, typatiens.* Sloane, v. 1, p. 158, t. 100, f. 2.  
Proserpio.

*Procerior, subcilierea, hirsuta; pedunculis ramosis; flore multiplici.* Browne, p. 267.

Leaves almost entire, peduncles dichotomous divaricate, paniced.

The root is perennial, stem frutescent, from two to three feet high, often prostrate, four-cornered, smooth, but pubescent towards the top; leaves opposite on short petioles, ovate-lanceolate, subserrate, nerved, somewhat hirsute or rugged; stem leaves longer; branch leaves often deciduous; panicles formed of opposite dichotomous branches, divaricating very much; pedicels one-flowered, flowers biggish, blue; capsule acuminate, surrounded by the calyx, two-celled, bursting by the claw; seeds roundish, compressed, black. The whole herb is somewhat clumsy, with glands, and has an odour approaching to that of camphor. It is a native of Jamaica in the southern parts in dry hills and hedges.—Sw.

When the capsule is ripe it bursts open with great violence on being wetted, throwing the seed to a considerable distance. This is a remarkable provision made by nature for propagating these plants when rain falls. It is very common about Spanish Town, and generally blows about Christmas, in the months of December and January, making a beautiful appearance on the hedges at that season of the year, whence its name, *Christmas-prise*, has been derived. The plant being weakly seldom rises above a foot or two unsupported, but climbs on the neighbouring bushes frequently the length of three or four feet, bearing a great number of flowers. This is the *self-heal*, or *all-heal*, of Barham, of which he gives the following account:

"These herbs are called in Latin *prunella*, or *alheal*, or *self-heal*; and the Germans call them *brunella*, or *bruneilen*, because they cure that disease which they call *die bruen*, common to soldiers in camps and garrisons, which is an inflammation of the mouth, tongue, and throat, with blackness, accompanied with a strong burning fever and distraction or delirium: The juice of these plants is a certain specific for that distemper, and all sore mouths and throats, mixed with a little honey of roses and white-wine vinegar. The decoction of the herb, in wine or water, makes an excellent traumatic drink, to forward the healing of all wounds and stubborn ulcers. It is said to take away the pain and swelling of the testicles, which negroes are apt to have. Above twenty years past, one captain Pickering, a gentleman I knew very well, had a stick with fire at the end of it darted at him, which happened to come just under the brow of his eye, and seemed to turn his eye out, and all despaired of his life. No surgeon being at hand, they sent for an old negro man, well skilled in plants; as soon as he came, he ran and took of this herb that hath the bluish or purple flower, and washed it, reduced the eye as well as he could to its place, and then laid on the bruised herb, bound it up, and the captain was carried home. The next day he sent for a surgeon; and when they came to open it, found it healed up to admiration; upon which they sent for the negro, and desired him to finish his cure; which he did in two or three days, only applying the same thing; and then the captain rewarded the negro very well, and desired him to shew him the herb. This I had from several worthy gentlemen who were there present, and affirmed it to be matter of fact and truth, who since, they told me, use it to all green wounds with great success, and call it Pickering's herb to this day."—Barham, p. 171.

## 2. BLECHUM.

*Prunella elatior flore albo.* Sloane, v. 1, p. 173, t. 109, f. 1. Blechum.



chum. *Foliis oblongo ovatis, spicis crassius foliolatis conico quadratis subhirsutis.* Browne, p. 261.

Leaves ovate, serrate-toothed, somewhat hirsute; spikes ovate; inner bractes in pairs; flowers three together, sessile.

Stem herbaceous, two or three feet high, upright, branched, four-cornered, striated even; the branches spreading, opposite, axillary; leaves petioled, opposite, ovate-lanceolate, acuminate, nerved; spikes terminating, four-cornered, conical, an inch long; bractes imbricate, or floral leaves, cordate, acuminate, nerved, hirsute, at the base of which are two little lanceolate bractes, and within them three sub-sessile flowers, small, whitish blue. Calyx five-leaved; leaflets awl-shaped, erect; corolla funnel-form, border three-cleft. Seeds membranaceous, black. It is an annual plant, common in the pastures and bushy places of Jamaica. Browne says it thrives best in a gravelly soil. Sloane found it on a rocky hill beyond Guanaboa.

### 3. BLECHIOIDES.

Leaves oblong, somewhat toothed, smooth; spikes ovate; flowers longer than the bractes.

The stems are prostrate, dichotomous, even, slightly four-cornered; leaves opposite, ovate, scarcely pubescent, quite entire, toothlets obsolete; petioles ciliate; spikes loose, four-cornered, made up of cordate, floral leaves, with two short lanceolate bractes within each, and within these two sessile flowers, one without the other:—*See*.

*See SPIRIT LEAF.*

## CINNAMON.

## LAURUS.

CL. 9, OR. 1.—*Enneandria monogynia.* NAT. OR.—*Moluraceæ.*

GEN. CHAR.—*See* Avocado Pear Tree, p. 37.

### CINNAMOMUM.

Leaves three-nerved, ovate-oblong; nerves disappearing towards the end.

This tree hath a large root, which divides into several branches, covered with a bark; which on the outer side is of a greyish brown, and in the inside has a reddish cast.—The wood of the root is hard, white, and has no smell. The body of the tree, which grows to the height of twenty or thirty feet, is covered, as well as its numerous branches, with a bark, which at first is green, and afterwards reddish. The leaf is longer and narrower than the common bay tree; and it is three nerved, the nerves vanishing towards the top. When first unfolded it is of a beautiful flame colour; but, after it has been for some time exposed to the air, and grows dry, it changes to a deep green on the upper surface, and to a lighter on the lower. The flowers are small and pale yellow, and grow in large bunches at the extremity of the branches: they have a smell, something like that of the lily of the valley. The fruit is shaped like an acorn, but is not so large.

The cinnamon is the under bark of the cinna-momum. The best season of separating it from the outer bark, which is grey and rugged, is the spring, when the sap flows in

the greatest abundance. It is cut into thin slices, and exposed to the sun, and curls up in drying. The old trees produce a coarse kind of cinnamon. When the trunk has been stripped of its bark, it receives no further nourishment; but the root is still alive, and continues to throw out fresh shoots. Its seed, when boiled in water, yields an oil which swims at top and takes fire. If left to cool, it hardens into a white substance, of which candles are made, which have an agreeable smell, and are reserved for the use of the King of Ceylon. The cinnamon is not reckoned excellent unless it be fine, smooth, brittle, thin, of a yellow colour, inclining to red; fragrant, aromatic, and of a poignant yet agreeable taste. The connoisseurs give the preference to that, the pieces of which are long but slender. Cinnamon is a very elegant and useful aromatic, more grateful both to the palate and stomach, than most other substances of this class. By its astringent quality it likewise corroborates the viscera, and proves of great service in several kinds of alvine fluxes, and immoderate discharges from the uterus.

The cinnamon is a native of Ceylon. Some trees were introduced into this island by Admiral Rodney, who captured them with other valuable plants in a French ship. One was planted in Mr. East's Garden, and another in the Botanic Garden, in St. Thomas the East. From these parent trees many hundreds of young trees have been produced, and now thrive in almost every part of the island.

Dr. Dancer gives the following account of the cinnamon trees, growing in this island, in the eighth volume of the Transactions of the Society of Arts:

"The cinnamon trees of this island have been raised from a few plants taken, along with a large collection of other oriental exotics, in a French ship, bound from the Isle of France to Hispaniola, and presented to the Botanic Garden by Lord Rodney, when he came down here, after his glorious victory of the 12th of April, 1782. Upon comparing the parts of the tree with the description and figure given by Burman and other botanists, it appears to be the real Ceylon cinnamon, and of the best kind, called by the natives *rasse coronde*; but the specimens of bark taken put it out of all doubt, being, in the opinion of the best judges, of an equal if not superior quality to any imported from India.

"The various and important uses to which the several parts of the plant are applied, make it an invaluable acquisition to the West India colonies; and there can be no impediment, except an impolitic prohibition, to its becoming an article of general cultivation, and of the most lucrative commerce. None of the botanical writers, whom I have had an opportunity of consulting, say much of the cultivation or propagation of the cinnamon; and we have hardly had time to make sufficient observations on the subject of either; but, for the information of the public, to whom it is a matter of some importance, I shall venture the few remarks which my own short experience enables me to offer.

"The cinnamon plant, though, (according to the account of travellers,) it grows to the height of twenty or thirty feet is, properly speaking, an arborescent one, and not a tree of the common kind: it puts out numerous side branches, with a dense foliage, from the very bottom of the trunk; which furnishes an opportunity of obtaining a plenty of layers, and facilitates the propagation of the tree, as it does not perfect its seeds in any quantity under six or seven years, when it becomes so plentifully loaded, that a single tree is sufficient almost for a colony. It seems to delight in a loose moist soil, and to require a southern aspect; the trees thus planted, flourishing better than others growing in a loam, and not so well exposed to the sun. When healthy, it is, (from

(from layers) of a pretty quick growth, reaching in eight years the height of fifteen or twenty feet, is very spreading, and furnished with numerous branches, of a fit size for decoration. The seeds, however, are a long time in coming up, and the plants make small progress for the first year or two. The birds appear to be very fond of the berries, and will, probably, propagate this tree in the same way they do many others every where over the island; so that in a short time it will grow spontaneously, or without cultivation.

"The best cinnamon bark, according to the different trials I have made, is taken from the small branches, of about an inch diameter, the larger limbs not being so easily decorated, and not yielding so good or so strong a cinnamon. The smaller twigs, or those that have not acquired a cineritious bark, are too full of sap and mucilage, and have little *aroma*. It is the *liber*, or inner bark, that constitutes the cinnamon, from which the two external barks must be carefully and entirely separated, or they vitiate the flavour of the cinnamon. To do this with dexterity, and to raise the bark from the wood, requires some practice; but there may perhaps be an easier method than that which I made use of; which was that of a common pruning knife. The bark being thus separated, the smaller pieces are to be placed within the larger; which, by exposure to the sun or the air, presently coil up, and require no further preparation. A dry season, I apprehend, is the proper one for taking the bark; as I have found the cinnamon not so strong after long or heavy rains. Cinnamon seems to be much more retentive of its virtues than any of the other spices; but it will certainly be proper to protect it, when taken, as much as possible, from the air and moisture, by close packing in cedar chests.

"Having thus communicated all that I am able from my own observations, respecting the culture and preparation of the cinnamon, I shall add what I know with respect to the uses of its several parts.

"The leaves, whether recent or dried, are so strongly impregnated with an *aroma*, similar to the cinnamon, that they are on all occasions a good succedaneum for the bark, both in cookery and medicine. Distilled, they give an excellent simple and spirituous water, and an essential oil, of the nature of oil of cloves. Powdered, they are a good aromatic species, or mareschal perfume. Every part of the tree, according to writers of the best authority, affords some useful product."

To account for the great quantities of cinnamon trees still remaining in the island of Ceylon, after the general exportation of the bark that has prevailed during several centuries, some authors have assured us, that, after the bark has been stripped off the tree, it becomes fit to be stripped off a second time in four or five years; but this assertion is no less contrary to observation than it is to the common course of nature.—The truth is, the barked trees being cut down, quickly put forth new shoots, which in a period of from five to eight years come again to the knife. Great numbers also of the trees are continually springing from the fruit, which either drops upon the ground, or is disseminated by the wild doves called there cinnamon eaters; insomuch, that here and there along the roads such quantities of these young trees are to be seen, as to look like little woods.

The following account of the mode of procuring cinnamon in Ceylon, is extracted from Thunberg's Travels:

C c

"Cinnamon

"Cinnamon is barked in the woods at two different seasons of the year. The first is termed the grand harvest, and lasts from April to August; the second is the small harvest, and lasts from November to the month of January. The barking is performed in the following manner: first, a good cinnamon tree is looked out for, and chosen by the leaves and other characteristics. Those branches which are three years old, are lopped off with a common hooked pruning knife. Secondly, from the twigs that have been lopped off, the outside pellicle (*epidermis*) of the bark is scraped off with another knife, which is convex on one edge, and concave on the other, with a sharp point at the end, and sharp at both edges. Thirdly, after the bark has been scraped, the twigs are ripped up longways with the point of the knife, and the bark gradually loosened from them with the convex edge of the knife, till it can be entirely taken off. Fourthly, the bark being peeled off, is gathered up together, several smaller tubes or quills of it are inserted into the larger, and thus spread out to dry, when the bark of its own accord rolls itself up still closer together, and is then tied up in bundles, and finally carried off. Sandy ground is best adapted of any for cinnamon trees. After the cinnamon has been packed up, the distilling of it commences. This, the dearest and most excellent of oils, is distilled from the fragments and small pieces of cinnamon, which break off and fall from it during the packing. This dust and refuse is laid in large tubs, and a quantity of water poured upon it sufficient to cover it completely. In this manner it is left in several different tubs, which are got ready, in daily succession, for six or eight days together, to macerate. One of these tubs commonly holds one hundred pounds weight of cinnamon dust. All this is poured, a little at a time, into a copper alembic, and drawn off with a slow fire. The water, called *aqua cinimomi*, then comes over quite white, nearly of the colour of milk, together with the oil, which floats at top in the open glass recipient placed underneath. A tub is distilled off every twenty-four hours. I was at great pains to ascertain how much oil is procured from one hundred weight of cinnamon dust, but constantly without effect, as it is against the apothecary's interest to let this be known. Thus much however is certain, that cinnamon does not yield much oil, in proportion to other spices, and that therefore such cinnamon as is useful cannot be employed for this purpose, but only the refuse, which cannot be sent to Europe. The wood of the tree is of a loose and porous texture, and handsome enough: when sawed into planks it is sometimes manufactured into caddies and the like, but its scent does not secure it from the attacks of worms."—*Thunberg*.

See AVOCADO—PEAR—BAY TREES—BENJAMIN—CAMPHIRE—COGWOOD—SASSAFRAS,

## CINNAMON, WILD:

## CANELLA.

CL. 11, OR. 1.—*Dodecandria monogynia*. NAT. OR.—

GEN CHAR.—Perianth one-leafed, three-lobed; lobes roundish, concave: the corolla has five petals, oblong, sessile, longer than the calyx, two a little narrower than the rest; nectary pitcher-shaped, the length of the petals, anthers bearing; the stamens have no filaments; anthers from nine to twenty, or even more, linear, parallel, distinct, fastened on the outside to the nectary: the pistil has a superior germ, within the nectary, ovate; style cylindric; the length of the nectary; stigmas two or three, blunt, convex, wrinkled; the pericarp an oblong three-celled

celled berry; seeds roundish, kidney-shaped (two to four). This is allied to *tinus*. In the ripe fruit one cell only is fertile, the rudiments of the other two being rarely seen.

## ALBA. WHITE.

*Arbor baccifera, laurifolia, aromatica, fructu viridi calyculato racemoso.* Sloane, v. 2, p. 87, t. 191, f. 2. *Folius oblongis obtusis nitidis, racemis terminalibus.* Browne, p. 275, t. 27, f. 3.

This tree is very common in Jamaica, and grows sometimes to the height of forty or fifty feet, straight, upright, branching at the top, and making a handsome appearance. The bark has an outward rind, thin, of a light grey colour, with some white spots scattered over it, having also several shallow furrows of a darker colour. The inward bark is twice as thick as the outer, smooth, and of a lighter complexion, of a much more biting aromatic taste, somewhat like that of cloves, not glutinous like cinnamon, but dry, and crumbling between the teeth. The leaves come out at the ends of the twigs without any order, generally alternate; they are petioled, oblong, about two inches and a half long and one broad, of a yellowish green colour, shining and smooth. The flowers grow at the tops of the branches in clusters, but upon divided peduncles, they are small, and seldom open, of a purple or violet colour. The lobes of the calyx are divided almost to the bottom, incumbent, green, smooth, membranaceous, permanent; the petals are concave, upright, thick, and deciduous; as is also the nectary. The berry is about the size of a pea, fleshy, smooth, green at first, but turns blue and black when ripe. The seeds are generally two, as two cells are commonly abortive. Sloane says he found four seeds in those he examined. The berries grow soft and pulpy when ripe, and lose that heat and pungency they possess when green, like those of the pimenta, and are then greedily devoured by the wild pigeons, and other birds, who disperse the seeds in different places by their muting.

This tree is common as well in the mountains as in the lower woods and rocky hills, and frequently found near the coast, where it seldom exceeds twelve or fifteen feet in height. All the parts of the tree when fresh are very hot, aromatic, and pungent, and when in blossom throws a perfume all around. The flowers dried, and softened in water, have a fragrant odour nearly approaching to musk.

The bark is cured without any difficulty by drying in the shade; what is taken from the branches is thinner, and rather milder, than from the body of the tree, more nearly approaching to the true cinnamon. The bark yields by distillation a warm aromatic oil, which is often sold for, and generally mixed with, oil of cloves; nor is the adulteration thought of any prejudice to the medicine. It is reckoned a good remedy in scorbutic habits; invigorates the blood, is carminative, and stomachic. Powdered and snuffed into the nostrils, it is cephalic, and produces a copious discharge of rheum.—It is used by most apothecaries instead of the true *cortex winteranus*, and being superior in quality, has superceded it in use. Four ounces of the bark, with six ounces of *cassia lignea* (which it very much resembles), and one gallon of proof spirit, (a handful of common salt being thrown in to dephlegmate the spirit,) makes a cinnamon water; and the greater part of what is vended in the shops, is compounded in this manner. A quantity of the bark, mixed with badly distilled rum, is said to discharge in part its nauseous empyreumatic taste and smell. This bark is a common ingredient with capsicums in the food of the negroes.

## CITRON.

## CITRUS.

CL. 13, OR. 3.—*Polyadelphia icosandria*. NAT. OR.—*Bicrnea*.

GEN. CHAR.—Perianth one-leaved, five-cleft, flat at the base, very small, withering; corolla five-petaled, oblong, flat, spreading; stamens usually twenty filaments, subulate, compressed, erect, placed in a ring or cylinder, united generally in a few bunches; with oblong anthers; the pistil has a superior roundish germ; style cylindric, the length of the stamens; stigma globular, nine-celled, within; the pericarp a berry with a fleshy rind, the pulp bladdery, nine-celled; seeds in couples, subovate, callous. To this genus belongs all the orange and lemon kind, Three species, of which there are many varieties, grow in this island.

## MEDICA.

*Citrus arbor et malus citrea*. Sloane, p. 176. *Fructu oblongo majori, cortice crasso carnoso, superficie inequali vesiculato*. Browne, p. 309.

Fruit with a rough-knobbed rind.

This tree, when cultivated, grows to the height of fifteen feet or more, but in a wild state seldom exceeds seven or eight. It is prickly, with long reclining ungraceful branches. Indeed, the whole tree has the most unseemly and straggling appearance of any of the species. The leaves are ovate-oblong, alternate, subserrate, smooth, pale green, thick, having winged footstalks. The flowers are white, odoriferous, on many flowered terminating peduncles. The fruit is very large, oblong-oval, rough rinded; the pulp white, commonly acid, the rind pale yellow, thick, hardish, odoriferous, irregular. Properly there are two rinds, the outer thin, with innumerable miliary glands full of a most fragrant oil; the inner thick, white, and fungous: the partitions consist of two very thin diaphanous membranaceous plates, connected at the axis, and inserted into the rind at the periphery; the cells are filled with a bladdery pulp. In each cell are a few seeds, commonly one or two, sometimes three or four. There are two varieties of this, one with round, and one with oblong, fruit.—The fruit of the citron is seldom eaten raw, though it has an agreeable acid taste; but its rind is well known as a pleasant sweetmeat when candied with sugar. The peel put among clothes is said to drive away moths, and imparts to them a good smell; if steeped in spirits gives them an agreeable flavour. According to Labat citron juice and cordials is an antidote to Manchioneal poison.

In Martyn's Dictionary it is observed, that the orange species is distinguished from the citron, lime, and lemon, by having winged petioles, which the three last have not. This is a mistake, as all these plants have their petioles winged, though the wings are much smaller than those of the orange kind. A better distinction is certainly the size, shape, and colour of the leaves themselves, as well as the larger size, and very different habit, of the orange from any of the lemon kind.

The leaves of the lime are neither so large nor so acute pointed as the orange; those of the lemon approach still nearer the oval, are of a paler green colour, and more serrated than either; the leaves of the citron have winged petioles, and are more serrated than orange leaves.

The

\* The tree known by the name of French lime is distinguished by round naked petioles.

The leaves of the shaddock have by far the largest wings on the petioles, and nearly resemble those of the citron in every respect.

See LIME—LEMON—ORANGE—SHADDOCK.

CLADIUM—See BOG RUSH.

## CLAMMY CHERRY.

## CORDIA

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Asperifolia*.

This is so named in honour of a German botanist, named Emericus Cordus, of the sixteenth century.

GEN. CHAR.—The calyx is a one-leaved tubular perianth, toothed at the top, permanent; the corolla is one-petaled, funnel-form; the tube patulous, twice the length of the calyx; border erect, spreading, cut into five obtuse divisions; the stamens are five or six filaments, subulate; with oblong anthers the length of the tube; the pistil has a roundish acuminate germ, a simple style, the length of the stamens, bifid at top; divisions bifid; stigmas obtuse; the pericarp is a globose drupe, acuminate, growing to the calyx; the seed a furrowed nut, four-celled, two barren. Six species of this genus are natives of Jamaica.

## 1. COLLOCOTEA.

*Ceraso affinis arbor baccifera racemosa, flore pentapetalo herbaceo guttato, fructu coccineo monopyreno viscido, semine rugoso.* Sloane, v. 2, p. 95, t. 203, f. 2. *Foliis rugosis venosis oblonga ovatis, floribus laxe racemosis.* Browne, p. 167.

Leaves cordate-ovate, quite entire; flowers corymbed; calyxes tomentose within.

This tree grows in most of the lowlands of Jamaica. It has a straight undivided trunk, rising fifteen to twenty feet, Sloane says even to fifty. The bark is smooth and clay-coloured. The branches spread on every hand; the leaves are oval, rugged, obliquely veined, and disposed alternately, about six inches long and two broad. These leaves are shed in December, and the blossoms, of a yellowish green with brown spots, come out in February, the fruit ripening in April. The leaves follow some time after the blossoms. The berries come out in clusters, of a fine red colour, about as big as a middling cherry, having a soft, sweetish, clammy pulp, enveloping the nut. Turkeys and other poultry feed much upon these berries, hence it is sometimes called the *turkey-berry-tree*. Hogs and dogs are also extremely fond of this fruit, and it is thought to fatten them. It is observed that Guinea hens, feeding on the berries, are fattest when they are in season.

## 2. MACROPHYLLA.

*Prunus racemosa, foliis oblongis hirsutis maximis, fructu rubro.* Sloane, v. 2, p. 130, t. 221, f. 1. *Platyphyllus major, racemis umbellatis.* Browne, p. 168.

Leaves ovate-villose, a foot and a half in length.

This

This tree, which is called the *broad-leaved cherry*, also rises to a considerable height, from forty to fifty feet, but is seldom above twelve or sixteen inches in diameter, shooting by a straight trunk. The leaves are a foot and a half long, very large and rough; the berries are the same size as those of the clammy. Browne says they are white, Sloane describes them of a reddish colour, owing perhaps to their different degrees of ripeness. The leaves are of a fresh green colour, having one large middle rib, and several transverse ones, standing on three-quarters of an inch footstalks. This tree grows chiefly in the lower woods, and Sloane found it on the banks of the Rio Cobre. The heart is of a yellowish colour and a pretty good timberwood.—*Sloane & Browne.*

## 3. SEBESTENA.

*Caryophyllus spurius inodorus, foliis subrotundo scabro, flore racemoso, he: apetaloides coccineo speciosissimo.* Sloane, v. 2, p. 20, t. 164.  
*Foliis amplioribus hinc ovatis, tubo floris subaequali.* Browne, p. 202.

Leaves oblong-ovate, repand, scabrous.

This rises, by several stems, eight or nine feet high, having a clay-coloured bark. The leaves grow towards the tops of the branches, standing on round inch-long footstalks, very thick set by one another. They are almost round, four inches long, and three broad, very harsh to the touch, and of a very dark green colour; the flowers stand each in a long rough calyx on the branches ends on their footstalks, umbel fashion, are of a delicate scarlet colour, many and large, consisting of a long undivided *tubulus*, something like a clove, and a broad margin, divided into six sections, all standing in a dark brown capsule.—*Sloane.*

This bushy shrub grows on the banks above the beach lying between the small lagoon eastward of Kingston and Captain Cornish's; and is said to grow in great abundance on those little islands about Old Harbour. The limb of the corolla has six segments, and there are six stamens. It seldom rises above seven or eight feet above the root, and is furnished with rough oval leaves, and adorned with large bunches of fine scarlet flowers, (hence the name of *scarlet cordia*,) the most beautiful and agreeable of any I have yet observed in America; but the form of them is quite different from that delineated by Plumier, wherein the tube swells above the cup, and consequently must be considered as a different species. This would make a most agreeable flowering shrub in a garden or a forest; and may probably be useful, could it be brought to bear perfect fruit, which it hardly ever does in the state I have observed it.—*Browne.*

Miller says that a small piece of the wood of this species, put into a pan of lighted coals, sends forth a most agreeable odour, and perfumes a whole house. The fruit, he adds, is accounted cooling and moistening, useful against sharp thin defluxions upon the lungs, helping coughs and catarrhs, and taking off the heat of urine.

The *ettow*, a variety of the *cordia sebestena*, was brought to this island in his Majesty's ship Providence, and is said to be a good dye wood.

## 4. MICRANTHUS.

Leaves elliptic, lanceolate, quite entire, membranaceous, veined; racemes compound, lax.—*Sw.*

## 5. ELLIPTICA.



## 5. ELLIPTICA. OVAL.

Leaves elliptic, acuminate, entire, coriaceous; branches compound, diffused; drupes acuminate.—Sw.

See SPANISH ELM.

CLARY, WILD—See TURNSOLES.

CLERODENDRUM—See VOLKANERIA.

## CLIMBING SORREL.

## BEGONIA.

CL. 21, OR. 8.—*Monoecia polyandria*. NAT. OR.—*Holoraceæ*.

GEN. CHAR.—The male flower has no calyx; the corolla has four petals, of which two opposite ones are larger; the stamens are numerous filaments inserted into the receptacle, with oblong erect anthers: Female flowers usually on the same common peduncle with the males; they have no calyx; the petals four, five, or six, commonly unequal; the pistil has an inferior germ, three-sided, generally winged; styles three, bifid; stigmas six; the pericarp is a three-cornered capsule, winged, three-celled, opening at the base by the wings. Four species are natives of Jamaica.

## 1. ACUTIFOLIA. ACUTE-LEAVED.

*Aceris fructu herba anomala, flore tetrapetalo.* Sloane, v. 1, p. 199, t. 127, f. 1, 2. *Sylvestris scandens, foliis cordato angulatis, ab altera parte majoribus.* Browne, p. 203.

Cauliscent, leaves semi-cordate; angular, toothed; the largest wing of the capsule obtuse-angled, the others acute-angled.

The characters of this genus do not yet appear to be well understood, nor the different species well described, although Mr. Dryander particularly studied it from such plants and specimens as he found in England. The following accurate description of this species is taken from the manuscript of Mr. Anthony Robinson. It is astonishing that the spathaceous calyx in both flowers, so very conspicuous and beautiful, should have been overlooked:

“Calyx of the male flower is a spathe, consisting of two leaves, whose bases are broad, embracing the stalk sideways, ending in a roundish point. They are of a deep blush red containing each two flowers, one of which blows while the other is budding. The fruit, when arrived at maturity, stands upon a pedicel one inch or more in length; the other advances in proportion as this decays; the pedicels are transparent, smooth, and shining, of a lovely coral colour. The corolla consists of two pairs of petals, alternately unequal, and oppositely equal; the broadest are roundish, with dented unguis into which the pedicel is inserted, the narrowest are oblong-pointed, and inclosed in the large ones before they open, they are not more than half an inch long and a quarter broad, the large petals are nearly an inch both ways; the unguis of the broad petals are red, those of the others as well as the bractea blush-coloured. Between the two broad petals arise the stamina, in rows, they are short, unequal, erect filaments, about forty in number, and sustain oblong, thin, upright, anthers; both the stamens and anthers are of a pale yellow, and are not near so long as the petals.

“The

"The calyx of the female flower is a spathe like that of the male, containing but one flower: the germ is triquetrous and sessile, having a membranous wing extended on each angle, lengthways, one of which is considerably broader than the rest: the corolla of the female flower consists of six unequal lanceolated petals, erecto-patent, placed circularly on the top of the germ, having no particular calyx more than the male ones. From the centre arise three styles, each dividing into two stigmas, curiously twisted. The flowers grow on long branched common jointed pedicels, in thin bunches, some of which sustain the male, and others the female, blossoms, but never both together. The pedicels are all of a pale transparent coral colour, polished and shining. The stems are branched, round, and jointed, on which leaves grow in an alternate order, in shape like those of the *epimedium*, or the ear of an ape or a bat's wing, having the pedicel inserted on one side. The leaves are five inches long and three broad, of a deep green, concave above, shining on both sides, the exterior margins angled, and undulated between the angles; the pedicel is thick, two inches long, of a red colour above, smooth and shining, and divides into divers nerves conspicuous beneath, the largest of which terminates at the extreme part of the leaf, or largest angle, sending off lesser ones on each side of the smaller angles, the lesser divisions, which are six in number, terminate each in an angle on the margin of the base; and more rounded lobe or division of the leaf. This plant (every part of which is out of the earth) is tender, brittle, and succulent, endued with an acid taste, like sorrel, but leaving an acrimony like that of the *arum*, though in a less degree. The lower side of the leaf is of a paler green than the upper, and is tinged in many parts, very irregularly with red."

This plant is very common in many parts of Jamaica, in woods, and on the sides of rocks, rivers, and precipices. A decoction of the leaves, which have an acid-bitter taste, is recommended as very useful in colds. Browne says when it grows in the free and open air, the flowers have an agreeable flavour, and are sometimes used in making whey, where wine cannot be admitted, and other acids thought too active and irritating for the stomach.

## 2. NITIDA. GLOSSY.

Shrubby, erect; leaves very smooth, unequally cordate, obscurely toothed; largest wing of the capsule roundish.

This is the *purpurea* of Swartz, and he says the *rumex* of Browne, which is also referred to above as the *acutifolia*. This is described as having alternate cylindric branches. Leaves seven-nerved, almost entire or obscurely toothed, one lobe of the base double the size of the other, the younger ones rose coloured about the edge; all very smooth and shining, bright green, paler beneath, four or five inches long and two or three broad: the petioles cylindric, thick, spreading, one third the length of the leaf: stipules sessile, oblong, one-nerved, as if were three-winged from a rib winged underneath, produced into a point: on the sides membranaceous, revolute; they are spreading, deciduous, the length of the petiole: racemes compound, cymose, androgynous, the males very numerous, the females few at the top, solitary, axillary, on long peduncles, dichotomous, three inches wide; peduncles upright, cylindric, longer than the leaf, the thickness of the petiole; bractes opposite, below the dichotomies and the pedicels, half embracing, ovate, or roundish, membranaceous, caducous: corolla flesh or rose-coloured, sometimes darker, flowers six petalled.

## 3. ACUMINATA.

## 3. ACUMINATA. ACUMINATE.

Caulescent, leaves hispid, semi-cordate, acuminate, unequally toothed; the largest wing of the capsule obtuse-angled, the others acute-angled.

The male flowers have four petals, of which two are opposite and smaller; the female flowers have five petals, of which two also are smaller than the rest. At the base of the germ are two bractes, which are sharply serrate, and only half the length of the germ. It grows on the Blue Mountains.

## 4. SCANDENS. SCANDENT.

Scandent radicans; leaves ovate-roundish, obscurely toothed; the largest wing of the capsule obtuse-angled, the others parallel and very small.

This has decumbent knotty stems, pushing out roots at the knots, and climbs trees within its reach. Flowers greenish. All the species are easily increased by cuttings, and are frequently found in New Liguanea mountains.

## CLOVEN BERRIES.

## SAMYDA.

CL. 10, OR. 1.—*Decandria monogynia*. NAT. OR.—

GEN. CHAR.—Calyx a one-leaved perianth, coloured within; tube bell-shaped, ten-streaked, border five-cleft, segments ovate, flat, spreading very much, blunt, two of them augmented with a point; there is no corolla: the nectary is one-leaved, conical, truncate, ten-streaked, almost the length of the calyx, and inserted into its border at the base, mouth bluntly ten or eight toothed; the stamens have no filaments; the anthers are ten or eight, oblong, erect, small, placed on the teeth of the nectary; the pistil has an ovate germ, an awl-shaped style, erect, length of the nectary; stigma capitate, obtuse; the pericarp is a roundish capsule, four-grooved, coriaceous, thick, one-celled, four-valved; the seeds are very many, sub-ovate, obtuse, marked with a little pore at the base, fastened to the valves, wrapped in a pulpy pellicle. Five species are natives of Jamaica.

## 1. NITIDA. GLOSSY.

*Fruticosa foliis nitidis cordatis, levissime crenatis; rudimentis molli-  
bus rubentibus; racemis tenuioribus alaribus.* Browne, p. 217, t.  
23, f. 3.

Flowers eight-stamened; leaves cordate, smooth.

Browne calls this the *shrubby samyda with waxy rudiments*, or the *larger cloven-berry bush*. It is frequent in the lowlands of Jamaica, and shoots sometimes to the height of seven or eight feet. The leaves are shining and very slightly crenate; the rudiments or segments of the nectary soft, red; flowers in slender axillary racemes. It has only eight filaments in each flower. It loses its leaves before it blossoms, and when they shoot again they are small and reddish. In Browne's figure the rudiments are too short and not natural in their form.

## 2. PARVIFLORA. SMALL-FLOWERED.

*Arbor baccifera, foliis oblongis acuminatis, floribus confertim ex alis  
Dd foliorum*

*foliorum erumpentibus fructu minima croceo.* Sloane, v. 2, p. 103, t. 211, f. 2. *Foliis ovatis cum acumine, fructibus plurimis minoribus confertis.* Browne, p. 217.

Flowers ten male; leaves oblong, pointed, crenulate, glabrous both sides, shining; peduncles crowded, axillary, one flowered.

This rises fifteen feet high, having a trunk as big as an arm, with a smooth white bark like hazel. It has many branches, and the twigs thickly set with leaves alternatively, but so close that they appear as if winged. The leaves are smooth and of a yellow-green colour, two inches long and three-quarters of an inch broad in the middle, where broadest. Between the branches and these come out the flowers, so small as to be scarcely discernible, roundish, and pale green, many together, and sessile, to which follow so many berries of an orange colour, bigger than large pins heads, consisting of a thin yellow skin, very thin pulp, and acini or seeds. It grows every where among the lowland woods, near the banks of the Rio Cobre.—*Sloane.*

This has the same kind of staminal rudiments as the first, and has three styles on the top of the germen, in which it differs; the rudiments are not red but green. The leaves are more deeply dented than those of the *nitida*, and are always at their full size when the tree is blossoming. Browne calls it the *smaller samyda* or *cloven berry bush*, and says this seldom rises above four or five feet. This has nine or ten filaments in the flower.

### 3. PUBESCENS. PUBESCENT.

*Frutex baccifer, folio oblongo integro, flore pentapetalo, pallide luteo odoratissimo.* Sloane, v. 2, p. 109. *Foliis ovatis villosis, floribus confertis, fasciculis sparsis.* Browne, p. 218.

Leaves ovate, tomentose beneath.

This is a small shrub, rising eight or nine feet high by several small trunks, straight, and covered with a reddish grey-coloured bark; the branches have leaves at three-quarters of an inch distant, which about the beginning of February fall off, and in their place come tufts of flowers, four or five together, on scarce any footstalks; they are pale green, pentapetalous, with stamens of the same colour, and smell very sweet.—To these follow oval black berries, about the bigness of small sloes, cleaving into two for the most part, whence the name. After these come the leaves, on one-tenth of an inch long footstalks, three inches long and one broad in the middle, where broadest, very soft and woolly, of a yellowish green colour, except the ribs which incline to red. It is to be met in the Red Hills going to Guanaboa. The berries when ripe are eaten by wild pigeons, which fatten them very much.—*Sloane.*

This is called the *hairy samyda* or *cloven berry bush*, but known among negroes by the name of *savanna wattle*, *parrot-wood*, and *wild coffee*: the berries are larger than those of the other species; and there is a variety of it which has berries still larger.—The blossoms smell like honey and contain a nectarous juice, and the berries have a bitter taste.

### 4. VILLOSA. VILLOUS.

Flowers ten-stamened; leaves oblong, sub-serrate, oblique at the base, silky, villose beneath; peduncles solitary, axillary.—*Sw. Pr.* 68.

*This*

This shrub is a fathom in height. Leaves alternate, spreading, rounded and oblique at the base, having a short point at the end, nerved and veined, the nerves beneath ferruginous; petioles round, short, villose; peduncles axillary, solitary, rising, very short, one-flowered; flowers biggish, white. This is certainly a different species from the *pubescens*. It is a native of the mountains and flowers in the spring.

### 3. GLABRATA. SMOOTH.

Flowers ten-stamened; leaves ovate-lanceolate, quite entire, shining; peduncles axillary, one-flowered.—*Sw. Pr. p. 68.*

This is a small tree, with a trunk ten or twelve feet high, smooth, unarmed. Leaves alternate, spreading horizontally, nerved and veined, smooth on both sides, shining above, bright green, with pores so small as to be scarcely visible; petioles shortish; peduncles in general shorter than the petioles and thicker, axillary, solitary, and one-flowered; flowers biggish and white. Two small acute stipules at the base of the peduncles. All the species are propagated by seeds.

Besides the above native species, the *rosea*, a native of St. Domingo, has also been introduced. It is a very ornamental plant, producing fine red flowers in abundance along its flexile pendent branches; and is supposed to be the *guidonia ulmi folio flore rosea* of Plumier. There is also a white variety of this in the Hortus Eastensis.

CLOVE STRIFE—See PRIMROSE-WILLOW.

## COB NUT.

## OMPHALEA.

CL. 21, OR. 8.—*Monoecia monadelphia.* NAT. OR.—*Tricocœ.*

GEN. CHAR.—Male calyx a four or five leaved perianth, spreading; leaflets two, opposite, larger, ovate, convex, coloured: no corolla; nectary four glands, or a fleshy ring encircling the germ; the stamen one columnar filament, thick, short; anthers two, oblong, incumbent, connate at top, polliniferous at the edge; or one, plano-convex, trifold. The female flowers in the same raceme: calyx a five-leaved perianth; leaflets three, larger, ovate, encircling the germ; there is no corolla; the pistil has an ovate germ, no style, stigma trifold: the pericarp is an oblong roundish capsule, fleshy, bluntly triangular, three-celled, three-valved: the seeds are solitary nuts, ovate, hard. Four species are indigenous to this island.

### 1. NUCIFERA. NUT-BEARING.

*Foliis obovatis glabris, ad basim biglandulis; floribus triandris.*—*Browne, p. 335, t. 22, f. 4*

Racemes compound, leafy, terminating; leaves scattered, oblong, very smooth, biglandular at the base; stem arboreous.

This tree frequently rises to the height of thirty or forty feet, or more, with a straight stem better than a foot in diameter, having a brownish bark with white spots. It grows very commonly in Jamaica. The branches bend down and are warted and sub-divided.

The leaves are alternate or scattered, they are oval, thick, succulent, six or seven inches long and three or four broad, having footstalks an inch and a half or two inches long, and are of a pale green colour. On the whole not unlike the manmee leaf.—The glands are in pairs, flat, depressed, round, perforated in the middle, distilling moisture; racemes solitary, the length of the leaves, nodding, loose; bractes petioled, sub-axillary, oblong, entire, biglandular at the base; racemelets alternate, divaricating, with two or three male flowers on a pedicel, and one female in the middle of each; calyx five-leaved, three larger, ovate, convex, membranaceous at the edge, coloured; nectary a fleshy blood red ring; filament purple from the middle of the disk; anthers plano-convex, purple trifid, with three polliniferous incisures; germ oblong, three-cornered, striated with six lines; stigma perforated: capsule pendulous, large, (about three inches broad and one thick, not unlike the shape of a turnip) roundish, obtusely three-cornered, thick, tough, and containing three hard nuts, about an inch diameter each, round, but flattened on the side where they are united to each other, where they strongly adhere; they contain a whitish kernel, surrounded by a yellow membrane, which has a very agreeable taste. The French call this *noisettier*, and in Jamaica it is known in some parishes by the name of *pig* or *hog nut*. The cotyledons of the nuts are emetic and purgative. The timber of this tree is of no service in building, being of a soft brittle nature. The kernels of the nuts in the raw state are delicately sweet and wholesome; they are produced in great abundance, and, when ripe, they burst from the pod and fall to the ground, where the hogs greedily devour them. When roasted they are equal, if not superior, to any chesnut. By compression they yield a very sweet and fine flavoured oil. As this tree is of quick growth, and bears fruit in three or four years, it is well worthy of extensive cultivation, and it succeeds very well in the poorest soils. They might easily be cultivated from the seeds along intervals, or interspersed among pastures, to which they would not only prove ornamental, but useful, by furnishing abundance of their fruit, and affording an agreeable shade to cattle and other live stock. These and the bread nut planted in hog crawles would be very valuable.

## 2. CORDATA. HEART-SHAPED.

*Frutescens diffusa, foliis amplioribus ovatis, petiolis biglandulis, racemis terminalibus.* Browne, p. 334.

Racemes compound, leafy, terminating; leaves scattered, cordate, villose underneath, biglandular at the base; stem scandent.

Stem shrubby, scandent, sub-divided, diverging, round, pubescent. Leaves alternate, acuminate, sub-coriaceous, thick, entire, smooth, pubescent underneath, on longish loose biglandular petioles; glands depressed, roundish. Stipules at the base of the leaves, small, lanceolate, deciduous; racemes branched, diverging, loose; bractes lanceolate, pedicelled, obtuse, smooth, at the base of the racemelets, which are many flowered; the flowers in clusters, peduncled, small, green. Calyx four-parted, with roundish segments, two of which are larger: filament from the centre of a coloured concave disk, convex at top: anthers purple, inserted into the margin of the filament: germ roundish, three-cornered; style very short, fleshy, three-cornered; stigma trifid, villose; capsule large, yellowish, containing three brittle nuts, with oblong-angular kernels. It grows in rocky coppices.—Sw.

## 3. AXILLARIS.

## 3. AXILLARIS. AXILLARY.

Racemes axillary; leaves distich, ovate-acuminate, shining, on very short petioles; stipules mucronate; stem shrubby.—Sw.

## 4. CAULIFLORA. FLOWER-STALKED.

Racemes cauline, scaly at the base; leaves distich, oblong, acute, shining; stem arborescent.—Sw.

No English Name.

## COCCOSYPSILUM.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Stellatæ*.

This name is derived from two Greek words, signifying a measure of grain or seed.

GEN. CHAR.—Calyx a one-leaved perianth, four-parted, superior, with erect acute segments; the corolla is one-petaled, funnel-form; tube longer than the calyx, gradually widening towards the border, which is four-parted, the parts ovate, erect; the stamens are four filaments, the length of the tube, inserted into the base, filiform, erect; anthers erect: the pistil has an ovate inferior germ; style the length of the stamens, bifid at the tip; stigmas simple; the pericarp is a roundish berry, inflated, two-celled, crowned; seeds numerous, minute. There is only one species, which is a native of Jamaica.

REPENS. CREEPING.

*Herbaceum repens, foliis venosis ovatis oppositis, pedunculis brevibus subumbellatis ad alas alternas*.—Browne, p. 144, t. 6, f. 2.

This plant is frequently observed in the cooler mountains of Liguanea and Mount Diablo; it grows in spreading tufts, each stalk creeping about eighteen or twenty inches from the root, and shooting out a few lateral branches as it runs. The leaves are opposite, and the following flowers and fructifications rise on short divided footstalks from their alternate axils.—Browne.

## COCKSCOMB.

## CELOSIA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Miscellaneæ*.

GEN. CHAR.—Calyx a three-leaved perianth, leaflets lanceolate, dry, acute, permanent, similar to the corolla; the corolla has five-petals, lanceolate, acuminate, erect, permanent, stiffish, calyciform; the nectary a margin surrounding the germ, very small, five-cleft; the stamens are five filaments, subulate, conjoined at the base to the plaited nectary, length of the corolla, with versatile anthers; the pistil has a globular germ; style subulate, straight, length of the stamens; stigma simple; the pericarp is a globular capsule, surrounded by the corolla, one-celled, circumcised; seeds few, roundish, emarginate. One species, the *paniculata*, is a native of Jamaica, another beautiful one, the *cristata*, has been introduced.

**1. PANICULATA**

## 1. PANICULATA. PANICLED.

*Amarantus fruticosus erectus, spica viridi, laxa et strigosa.* Sloane, v. 1, p. 142, t. 91, f. 11. *Foliis oblongis, floribus racemose spicatis, fere sessilibus.* Browne, p. 179.

Leaves ovate-oblong; stem rising, panicled: spikes alternate, terminal, remote.

Stem suffruticose, prostrate, round, sub-divided, striated; branches diverging.—Leaves acuminate, petioled, entire, smooth; spikes racemed, axillary, and terminating, short; flowers distinct, whitish; the calyx consists of five ovate-acute leaflets, whitish within; corolla none but a cup-shaped five-cornered nectary, surrounding the germ; to the edge of which the filaments are fixed. The anthers are versatile and purple; germ ovate; style subulate, simple, red; stigma trifid; capsule covered by the permanent calyx, with numerous shining seeds.—Sw.

The flowers of this plant seldom open, and are of a yellowish green colour, with a blackish style; the seeds are so small as singly to be scarce discernible, shining, and of a brown colour, roundish, and hollow on one side, when viewed by a microscope. It grows by the banks of the Rio Cobre.—Sloane.

## 2. CRISTATA. CRESTED.

Leaves oblong-ovate; peduncles round, sub-striated; spikes oblong.

This is the buff-coloured *celosia* or cockscomb, a most beautiful plant, which, since its introduction, has been generally cultivated, and thrives most luxuriantly in Jamaica. It received its name from the form of its flowers resembling that of the comb of a cock. There are many varieties raised from the same seed, differing in form, magnitude, and colour; and some have been observed variegated with two or three colours. It is a native of Asia.

COCKS-HEAD—See FRENCH HONEYSUCKLE.

COCK-SPUR—See FINGRIGO.

## COCOA NUT TREE.

## COCOS.

CL. 25.—*Monocia hexandria.* NAT. OR.—*Palmae.*

This is called by the Portuguese *coco*, from the three holes at the end of the shell, giving it the appearance of a monkey's head.

GEN. CHAR.—Male flowers in the same spadix with the females. Male calyx an universal univalve spathe; spadix branching; perianth three-parted, very small; divisions sub-triangular, concave, coloured; the corolla has three petals, ovate, acute, patulous; the stamens are six filaments, simple, length of the corolla, with sagittate anthers; the pistil has a scarce manifest germ, three short styles, and an obsolete stigma; the pericarp abortient. The calyx of the female flower is a common spathe with the hermaphrodites, as likewise the spadix; the perianth is three-parted, divisions roundish, concave, converging, coloured, permanent; the corolla has three permanent petals, like the calyx, but rather larger; the pistil



til has an ovate germ, no style, a three-lobed stigma; the pericarp is a coriaceous drupe, very large, roundish, obscurely triangular; the seed is a very large nut, sub-ovate, acuminate, one-celled, valveless, obtusely three-cornered, the base perforated by three holes; kernel hollow. Three species of this genus are natives of Jamaica.

NUCIFERA. NUT-BEARING.

*Palma indica nucifera coccus dicta.* Sloane, v. 2, p. 8. *Spadicibus alaribus; fructu maximo; caudice subæquali, cicatriculis circularibus scabro; foliis ensiformibus, replicatis, pinnatis.* Browne, p. 341.

Unarmed; fronds pinnate; leaflets folded back, ensiform.

This tree is planted in most parts of America, both for its beauty and productions; it grows generally in the lowlands, and rises frequently to a considerable height, bearing all its foliage at the top, like the rest of its kind. This consists of many strong ribs, furnished with long narrow leaves, folded lengthways, which rise in a continued series on both sides, and spread very evenly both ways. These ribs shoot gradually from the top, and as the younger ones stretch out sufficiently to raise the sap, the lower ones decline, wither away gradually, and fall off in time. The flowers of this tree rise in spreading bunches from the axis of the ribs, and are supported by so many large branched footstalks; these, while young, are very thickly beset with blossoms, and covered with a simple, thick, fibrous spathe or sheath, of an oblong form, pointed at the top, and moderately contracted at the bottom. When all the parts of the flowers have gained a due degree of perfection, the spathe splits on the under side, from the bottom upwards, and exposes the common bunch, with all its flowers, to the open air: most of these are males, and fall off gradually as the spathe withers, leaving the embryo fruit, which is generally fixed to the lower and stronger part of the stalk, to increase and ripen gradually. These grow very large and are composed of thick fibrous husks, containing so many large hollow nuts; which in most of the tribe are trilocular; though in this, as well as some of the other species, two of the cells are obliterated, and the third only comes to perfection. The nut or shell is formed of a hard compact substance, and filled with a sweetish water, while young; but as the fruit advances in its growth, this deposits a soft gelatinous crust upon the sides of the shell, which hardens gradually with age, until at length it acquires a strong concreted texture; and then it is not unlike the substance of an almond, either in taste or consistence. The water contained in the nuts is very pleasant while they are young, and generally looked upon as one of the greatest dainties of America; but, as they grow old, the liquor becomes more sharp and cooling, and far more agreeable to over-heated habits. The kernel is very nourishing, and may be used instead of almonds, in milks, emulsions, and apozems, and with greater propriety as it may always be had fresh. The shells serve for drinking and water cups, and the husks, which are very fibrous, are made into various sorts of cordage, in some of the eastern parts of the world, but in Jamaica they are only used to scour floors. The leaves of the tree are used for thatch, and the tender shoots at the top afford a pleasant green or cabbage (which, however, when cut, destroys the tree). The outward part of the trunk is made into lathings, and the juice obtained by tapping it at the top, being mixed and fermented with molasses, affords a very pleasant wholesome spirit, which differs but very little from arrack. At the bottom of the ribs we find a coarse fibrous net-work, that serves for strainers; and the

kernel.

kernel is frequently rasped and made into fritters and cakes. The roots of the tree are very slender, simple, and flexile; they rise separately from the bottom of the trunk, and spread in all directions, some running to a great depth in the ground, while others creep almost parallel to the surface.—*Browne*.

This tree rises to the height of fifty or sixty feet, and flourishes remarkably on the very margin of the sea, planted in the sand with a little mould. It is produced from the nut, which bears transplanting extremely well, though rendered more vigorous by mixing salt with the earth into which it is removed.

The substance which incloses the shell is made of tough fibres, of which the Indians make not only cordage and other tackle for ships, but a kind of oakum for caulking, which is highly extolled. Steeped in water, and beaten like flax, it is manufactured into an excellent linen. After this coat is taken off, the shell makes its appearance, which takes a fine polish, and is often formed into drinking cups, set in silver. The liquor is generally esteemed highly antiscorbutic, one of the pleasantest drinks in America, and makes a salutary emulsion in fevers; it is also added in the distillation of rum, and thought to improve the flavour of that spirit. The trunk is formed into gutters, and occasionally employed for enclosing and roofing out-houses, and, being nailed close, is so hardy as to resist the weather for many years.

In order to make arrack from it, the tree must be kept from bearing fruit. For this purpose, the sprout which produces the nut, and which shoots every month, is cut, and jars fastened to it to receive the liquor; or the body is bored, and a plug put into the orifice, which is occasionally taken out when the liquor is wanted: this liquor is suffered to ferment, and, whilst it is in this state, it is distilled into the spirit called arrack, which far excels what is drawn from rice. If this liquor is exposed to the sun, it soon turns to vinegar; it must therefore be carried, immediately after it is collected, into a shady place.

Near the base of the larger branches or footstalks is a web-like *plexus*, composed of fibres curiously interwoven by the hand of nature, which is the clothing this tree is said to afford; and is often used in this island for strainers.

Considering this variety of productions, those writers have not been guilty of much exaggeration, who assert that it furnishes meat, drink, physic, clothing, lodging, and fuel.—*Long*.

The milk or water of the nut is cooling and pleasant, but, if drank too freely, will frequently occasion a pain in the stomach. A salutary oil may be extracted from the kernel; which, if old, and eaten too plentifully, is apt to produce a shortness of breathing. The largest coco-nut trees grow on the River Oroonoko. They thrive best near the sea, and look beautiful at a distance. They afford no great shade. Ripe nuts have been produced from them in three years after planting. The nuts should be macerated in water before they are put into the ground. Coco is an Indian name; the Spaniards call it also *palma de las Indias*; as the smallest kind, whose nuts are less than walnuts, is termed by them *coquillo*. This grows in Chili, and the nuts are esteemed more delicate than those of the larger size.—*Grainger*.

This useful plant is supposed to be a native of the Maldive and some desert islands in

in the East Indies, and from thence to have been transported to all the warm parts of America; for it is not found in any of the inland parts, nor any where distant from settlements. The body of the trunk, which generally leans to one side, occasioned, as is supposed, by the great weight of nuts it sustains when young, is the exact shape of an apothecary's large iron pestle, being of an equal thickness at top and at bottom, but somewhat smaller in the middle; its colour is of a pale brown throughout, and the bark smooth. The leaves or branches are often fourteen or fifteen feet long, about twenty-eight in number, winged, of a yellowish colour, straight and tapering. The pinnæ or partial leaves are green, often three feet long next the trunk, but diminishing in length towards the extremity of the branches. The branches are fastened at top by brown stringy threads that grow out of them, of the size of ordinary pack-thread, and are interwoven like a web. The nuts hang at the top of the trunk, in clusters of a dozen in each. Each nut, next the stem, has three holes closely stopp'd; one of them being wider and more easily penetrated than the rest. The quantity of liquor in a full grown nut is frequently a pint and upwards. The bark may be wrought into cordage, and the leaves make baskets, brooms, hammocks, mat, racks, and other useful utensils. In Maldivia the cocoa-nut is esteemed as a powerful antidote against the bites of serpents and other poisons.

The following observations on the cocoa nut tree, and its uses in the East Indies, are extracted from the account given of this valuable plant by M. Le Goux de Fiaix, an ingenious officer of engineers, and a member of the Asiatic Society of Calcutta, which was published some years ago:

"It is well known that the fibrous covering of the coco-nut is converted into good ropes, which are useful in navigation, and for various purposes on shore. Cables for anchors made of this substance are much better than those made of hemp. They are exceedingly elastic, stretch without straining the vessel, and scarcely ever break; inappreciable advantages, which are not possessed by those of hemp. They are also lighter, and never rot, in consequence of their being soaked with sea water. They never, like those of hemp, exhale damp miasmata, exceedingly hurtful to the crews of ships who sleep on the same deck where these ropes are kept when ships are under sail. To all these advantages must be added, that ropes made of the *kaer*\* float like wood, that they are much easier managed, and run better in the pulleys during nautical manœuvres.

"The palms of this tree, when entire, are employed to make mats for sleeping upon. When split through the middle, according to the length of the foot-stalk, they are wove into mats for covering sheds and houses. The use of these mats, even for the largest edifices, is general on the coast of Malabar. When the nut is rasped with a circular-teethed piece of iron, there is extracted from it a kind of milk or emulsion, by mixing with it a small quantity of boiling water, and then straining it through a piece of thin cloth in the same manner as those do who extract milk of almonds.

"This emulsion is employed for different purposes: it is used for preparing salop and sago. When put into coffee, instead of cream, it gives it an exquisite taste: that of our almonds produces nearly the same effect. This emulsion is employed also in the art of painting caintzes; to remove stains of the colours, and scour the cloth after the colours have been applied. The milk of the coco-nut, though oily, effervesces with

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\* The Hindoo name for the fibrous covering.

an acid extract of that plant called by the Hindoos *colechi*, and the acid then precipitates it into a grayish lime, which becomes of a rich violet colour by the addition of fixed alkali; it is with this colour that cotton cloth and chintzes are dyed. When this emulsion is mixed with quicklime the alkali becomes rose-coloured. It is by these means that the Hindoos prepare the rose-coloured lime which they use with betel.

"The dyers employ this milk with great advantage for silk, cotton, and woollen stuffs, which they dye black. It prevents that colour, which is generally caustic, from burning the stuffs, and the dye becomes darker and more beautiful. I suppose that emulsion of almonds would produce the same effect as that of the coco-nut; our black stuffs then would not be burnt, as is generally the case: this observation may be of use to dyers.

"If the milk of the coco-nut be concentrated by ebullition over a moderate fire, a sweet oil, agreeable and fit for the table when fresh, is obtained from it. The physicians of the country compose with this emulsion a gentle purgative, which is not nauseous: it produces no cholic or violent pain. It is administered in cases of plethora, gonorrhea, and other diseases; it is also an excellent vermifuge. It is composed of half a pint of emulsion in which three or four heads of garlic have been dissolved, by boiling over a slow fire, to the consistence of marmelade: it is given to the patient fasting, while warm, with the addition of a little sugar.

"The oil of this nut is extracted by pressure; it is fit only for being burnt in lamps; it is of a drying quality, a little acrid, white, and so light that it becomes fixed even in the torrid zone; when burnt it gives a clear bright flame without exhaling any odour or smoke. It is employed by rich people and in the houses of the Europeans in preference to any other kind. The substance from which this oil has been squeezed is given to beasts of burden mixed with their forage; this food when given to cows and goats increases the quantity of their milk.

"Such are the properties and different uses made of this palm. If the wood could be employed for building or for domestic purposes, it might justly be said that the coco-nut tree alone would be sufficient for the use of man. It is, however, an useful vegetable production, a valuable gift of Providence to the peaceful inhabitants of that fine country where it has been placed.

"It was the coco-nut tree which gave the Hindoos the first idea of inventing the allegory and ingenious fable of the phoenix, as may be seen in the fifth chapter of the *Poronia*, one of the commentaries of the *Vaides*, a sacred book of these people, which contains the principles of their religion, the history of the country, their sciences, and in general all their knowledge, as well as the practical knowledge of all the arts which are cultivated in it."

The emulsion and oil of the kernel of the cocoa nut is recommended as good in coughs and complaints of the lungs. Pound the kernel in a mortar with water, then put it in a vessel with a larger quantity of water; let it settle, and then skim off the cream. This is preferable to the expressed oil, which soon becomes rancid.—*Dancer's Med. Asst. second edition, p. 386.*

In addition to the former known uses of this valuable tree, a very respectable gentleman of this island has lately discovered that the outside shining surface, both of the nut and the branch, scraped off in fine powder, and applied to old and foul ulcers, will cleanse and heal them rapidly. The efficacy of this simple application was fully proved by the cure of two bad sores occasioned by the bite of a negro's teeth.

See MACAW TREE and PRICKLY POLE.

COCOA

## COCOA PLUM.

## CHRYSOBALANUS.

CL. 12, OR. 1.—*Icosandria monogynia*. NAT. OR.—*Pomaceæ*.

GEN. CHAR.—Calyx a one-leafed bell-shaped perianth, five-cleft, divisions expanding, withering: the corolla has five oblong, flat, spreading, petals, inserted by their claws into the calyx; the stamens are very many, placed in a circle, erect, inserted into the calyx; anthers small, twin: the pistil has an ovate germ; style the shape and length of the stamens, inserted laterally at the base of the germ; stigma obtuse; the pericarp is an ovate drupe, large, one-celled; the seed an ovate nut, marked with five furrows, wrinkled, five-valved. There is only one species.

## ICACO.

*Fruticosus, foliis orbiculatis alternis, floribus laxo-racemosis.* Browne, p. 250, t. 17, f. 1, 2.

This plant is a native of the Caribbée islands and grows in Jamaica, though the plant, described as follows, by Browne, is thought to be only a variety:

"It is very common in Portland and Carpenter's Mountains, and seems to thrive best in a cool moist soil. It grows to the height of six or seven feet, and bears a fruit not unlike the English plum in size and shape. Of these some are red, some white, and others black, without any essential difference in the shrubs of either sort. The fruit is perfectly insipid, but contains a large nut, inclosing a kernel of very delicious flavour, which makes up abundantly for the insipidity of the pulp. The fruit of the several complexions mentioned have been preserved with sugar, and sent by way of present to Europe; but the red and black kinds are generally preferred."—*Browne*.

## COCOES OR EDDOES.

## ARUM.

CL. 20, OR. 9.—*Gynandria polyandria*. NAT. OR.—*Piperitæ*.

This name is derived from a Greek word signifying injury, from the juice of the leaves being very biting and painful in most of the species.

GEN. CHAR.—Male flowers on the same spadix with the female, closely heaped between a double row of threads: Calyx a one-leafed spathe, very large, oblong, convolute at the base, converging at the top; the belly compressed, coloured within; spadix club-shaped, quite simple, a little shorter than the spathe, coloured, fenced at bottom with germs, and shrivelling above them; there is no proper perianth; no corolla: Nectaries? thick at the base, ending in threads or tendrils, in two rows, issueing from the middle of the spadix; the stamens have no filaments, each anther is sessile and four-cornered. The female flowers, on the lower part of the spadix, close to each other. They have no corolla nor proper perianth; the pistil has an ob-ovate germ, no style, stigma bearded with villose hairs; the pericarp is a globular berry, one-celled; seeds several, roundish.—Nine species grow very generally in Jamaica. Two of them, with their varieties, well known under the name of *cocoës* and *tayas*.

## 1. COLOCASIA.

*Aron maximum Aegyptiacum quod vulgo colocasia.* Sloane, v. 1, p. 166. *Acaule Purpureum, foliis amplissimis cordato sagittatis:* Purple coco. *Acaule maximum, foliis cordato-sagittatis:* White coco. Browne, p. 332.

Leaves peltate, ovate, repand; semi-bifid at the base.

Of this useful vegetable there are several varieties, very generally and largely cultivated in this island; as they form a principal part of the subsistence of the negroes, who prefer them even to yams, though not so light, nor so agreeable a food, yet very wholesome and nourishing, either boiled or roasted. All the kinds are easily cultivated by cuttings from the main stem or root, commonly called the head, after the plant ceases to produce its esculent roots, or from its suckers. It bears in about nine months after planted, and, after the first cocoes are dug, will continue to produce more every four or five months, for about three years, when the heads should be drawn.—The roots boiled or roasted are excellent food for fattening hogs; for which animal all parts of the plant are a good food. The main root of all the species, more especially of the spotted kind, possess a considerable degree of acrimony, which, after being dried and kept for some time is lost, and they become insipid to the taste. The fresh roots applied raw are a maturating cataplasm; Long says that the dried root, pulverised and mixed with honey, expectorates tough phlegm, and is reckoned excellent in asthmatic complaints. Mixed with flour of brimstone, it is a specific in consumptions.—The fresh roots and leaves, distilled with a little milk, form an approved cosmetic lotion; and the juice expressed from the leaves is recommended for cleansing and healing foul ulcers.

The following are the kinds principally cultivated in Jamaica:

The *purple coco*, which is of a dry meally nature and agreeable taste, as well as a nourishing food.

The *white coco*, whose underleaves are sometimes used as a green; and also produces a very agreeably tasted root.

The *Surinam coco*, which is by far the most delicate, but by no means so productive as the others; it bears at a greater distance from the main root than the other kinds, is much longer in proportion to its thickness, and creeps to a considerable distance in the earth.

The *San Blas coco*, which has come into general cultivation for some years past, grows to an enormous size in its stem or head, and the cocoes it produces are so large as often to weigh three or four pounds or more each. When full they are dry and very palatable, forming a hearty and nourishing food. From the great productiveness of this kind, the cultivation of the others has of late been so much neglected, that it is very rare to see a field of any other description. The negroes are particularly partial to them.

The *St. Kitt's coco*, which though of a much smaller size than the San Blas, is yet well worthy of cultivation, not only on account of its productiveness, but as it is a very dry, meally, and agreeable food. It is of a yellow colour when ripe.

The *baboon hog coco* or *taya*, which also produces a very large root, but every part of the plant very coarse, and is therefore principally planted for the purpose of feeding hogs, which it fattens very well, especially if boiled or roasted; but, even in that state, so acrid are its juices, it burns and heats the throat considerably. When boiled and  
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cut into small pieces; the heads of this, as well as of the other kinds, which are all of an astringent nature, are a good food for poultry. The seeds are good to feed chickens.

## 2. PEREGRINUM.

*Acaule maximum, foliis cordato sagittatis, radice leniter mordecante.*  
Browne, p. 332.

Leaves cordate-obtuse, mucronate; angles rounded.

This seems only a variety of the white coco, the pedicels being lightly tinged with purple, the embryos in the spadix grow at its base, above which are a great number of purple glands, and the upper part entirely taken up by the anthers, which are disposed in bundles of about twelve together, and the thin white filaments to which they adhere cover their upper or exterior end. The spadix is free all its length.

Browne calls this the *scratch coco*, from the pungency with which its roots are impregnated.

See DUMB CANE—FIVE-FINGER—INDIAN KALE—WAKE ROBINS.

## COFFEE.

## COFFEA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Stellatae.*

This was so named from the Kingdom of Caffa, in Africa, where it grows abundantly.

GEN. CHAR.—The perianth is minutely five-toothed, very small, superior: the corolla is one-petaled, salver-shaped; tube cylindric (swelling a little towards the top), slender, many times longer than the calyx; border flat, five-parted, longer than the tube; divisions lance-shaped, their sides rolled back: The stamens are five filaments, subulate, placed on the tube, at the divisions of the petals; anthers linear-lanceolate, incumbent, length of the filaments: the pistil has a roundish inferior germ; style simple, length of the corolla; stigmas two, reflected, subulate, thickish: the pericarp is a roundish berry; seeds two (sometimes only one), solitary, elliptically hemispherical, gibbous on one side, flat on the other, where it is furrowed longitudinally, involved in an aril. One species of this genus is a native of Jamaica, the *occidentalis*; the *Arabica*, or coffee tree, is an exotic.

## 1. ARABICA. ARABIAN.

*Fruticosa foliis oppositis, floribus plurimis sessilibus ad alas.* Browne, p. 161.

Flowers five-cleft; berries two-seeded.

This valuable plant seldom rises, if left to itself, above seventeen or eighteen feet, but in a state of cultivation is not allowed to grow above five or six feet in height.—The main stem grows upright, and is covered with a light brown bark. The branches are produced horizontally and opposite, crossing each other at every joint, so that every part of the tree is garnished with them; they are brachiate, smooth, lax, and in old trees bend downward, the lower ones are the longest, gradually decreasing towards the top, which gives the tree a most beautiful pyramidal figure when about two or three years old; after that age, however, in a state of cultivation, the tops are generally cut off at the height of five or six feet, when the upper branches by that means acquire more

more vigour, and shoot out to the same length as the lower. The leaves stand opposite to each other, are ovate-lanceolate, and when full grown are seven inches long and three broad in the middle, decreasing towards each end; their borders are handsomely waved, their upper surface of a dark lucid green-colour, their lower of a pale dull green, having half inch long petioles, which continue through the leaf, forming the midrib, from which issue alternate veins, from eight to ten on each side, having at their origin little secretory punctures, which are prominent on the upper surface; according to Linneus, these leaves continue three years. The flowers are produced in clusters at the base of the leaves, sitting close to the branches; they are of a pure white, and of a very grateful odour, like jasmine. Nothing can be conceived more delightful than the appearance and perfume of a field of coffee in full bloom; the air is filled with fragrance, and the trees appear as if a shower of snow had just fallen on their dark green leaves, which are almost entirely hidden by the flowers, but here and there the colour of the foliage may be discovered, forming a fine ground for, and beautiful contrast to, the pure white of the blossoms. This appearance is, however, but of short duration, for, in a few hours after they are full blown, the corollas decay, become brown, and drop off; they slip along the style, and wither while they hang upon the stigmas; so that the beauty and fragrance which may have delighted the senses in the morning have entirely vanished by noon. The berries succeed, which are first green, turn red when fully grown, ripen into a dark purple, when they shrivel and drop from the tree. They are of an oblong spheroidal form, with a little circular area at the top, within which is a callous dot; the pulp is pale, sweetish, and gelatinous; two-celled; and the partition is fleshy and vascular; it is the only receptacle, and penetrates the cleft of the seeds. In each cell is one seed only, of an elliptic form, convex on one side flat on the other, with a longitudinal cleft, covered with a loose, elastic, parchment-like aril, of a pale glaucous colour; within which it has another very fine silky, diaphanous, cover. The time of blossoming varies in different situations, but is generally in the spring of the year, from February to June, and there are two or three different blooms, a few weeks distant from each other, sooner or later, according to the seasons, which is a very fortunate circumstance for the planter, as the fruit ripening at the same intervals affords time for getting in the crop, as well as for curing it for market. The fruit is fit to pick in about seven months from the appearance of the flowers. In old trees the berry is found often to contain only one oval grain, having no flattened side; and, on the other hand, young luxuriant trees frequently produce berries containing three seeds.

With regard to the cultivation of this valuable plant; the higher mountains, where there is the greatest regularity of seasons, and where the land is not of a cold clayey, or hot marly, nature, have been found by experience most congenial to the coffee tree. It delights in a cool climate, to be situated on a declivity, where there are frequent rains, and where the soil is deep and easily penetrated by its tender fibrous roots, which often shoot into the earth four or even five feet. It thrives best in a southern or western aspect, well sheltered from the blasting effects of the north wind. It grows luxuriantly, and is very productive, in rocky land where the soil is rich and deep in the intervals between the rocks, which prevent it from washing away. In flats or bottoms, where water frequently lodges about its roots, the leaves become spotted, drop off, and the tree itself soon decays. In such situations, indeed, it seldom produces much fruit, but runs into a wilderness of branches and leaves. Coffee may be planted at all times of the year, when there is rain, but it certainly succeeds much the best when planted



in the spring. In settling a coffee estate it is always advisable to make choice of virgin land, which ought to be well cleared, and roads tracked or made through it before, or soon after, the coffee is planted. The plant is propagated from the seed, which vegetates very quickly, and nurseries should be formed, so as to produce good plants, in time, for any intended plantation. Plants may be taken about six months old, or between that and twelve months, but should not be older. They are generally planted from six to eight feet distant every way from each other, according to the poverty or richness of the soil. After they are planted the ground should be kept perfectly clean. Some settlers prepare a small hole, filled with manure, for each plant; but others content themselves with planting them by means of pointed pegs, with which they simply bore a hole in the ground and insert the plant; the former is certainly the preferable way, although, in good land, the coffee succeeds very well under the latter treatment. The trees bear when between two and three years old, the fourth year is the fullest bearing year in all situations; and they will continue to thrive and to bear for thirty or forty years in a good soil. They are seldom allowed to grow above six feet, some planters cut off the top much lower, which process throws great strength into the bearing branches, and renders the tree much more convenient for picking than if it was allowed to run up taller. This topping preserves the lower branches, which otherwise would decay, as they do in all trees that are allowed to ascend. Topping, however, renders constant and laborious pruning necessary after the fourth year, as, without pruning, the vegetation, instead of producing fruit, would be forced into an useless production of branches and leaves, which would prevent the sun and air from penetrating to the stem, by which the coffee is very much benefited; and on which, indeed, its good bearing depends. The best time for pruning is immediately after the crop is taken off; the sooner the better, especially for such trees as have suffered by too heavy a bearing. In these trees the fruit frequently blasts in its early state, turning black and dropping from the tree. The very blossom is often blasted by the north winds, or excessive dry weather, when they fall withered to the ground; but, if the fruit succeed, little capsules or knobs are formed beneath the flower, which suspends itself, withered, at the end of the pistil.

After the coffee berries have been picked from the tree, there are several modes of drying and preparing them for market.

The simplest, but most tedious, method, is by drying the berries on platforms in the state they are picked from the tree, which produces the best flavoured and heaviest coffee, weighing from three to five *per cent.* more than when dried by any of the following methods.

Another mode is by passing the coffee berries, as picked from the tree, through a simple machine, which breaks and bruises the pulp, allows the sweet juice it contains to drain off, and thereby much facilitates the process of drying, not taking above half the time the former method requires, about ten days, in favourable weather.

The third method, which is generally adopted on large plantations, is by passing the berries through an ingenious machine, called the grating mill, which tears off the pulp, and completely separates it from the seeds, which are afterwards washed in cisterns, and are then exposed to the sun, or dried in kilns, in the former way becoming sufficiently dry in three or four days, and in the latter in a few hours. This machine, however, injures a good many of the grains by scratching and breaking them, as well as occasioning a general deficiency in the weight of the coffee. These losses are, how-  
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ever, of no consideration, compared to the time that is gained, and the labour saved, by this process.

When the berries are sufficiently dried, which they are when the husks crackle under the feet, in either of the above ways, the husk and parchment skin are removed by the peeling mill, which is a circular trough about ten or twelve inches deep, in which is a large vertical roller or wheel, made of hard and heavy timber, from five to seven feet high, through which an axle is passed, and the machinery, as its situation may admit, so constructed as to be turned round either by water or by mules. It exactly resembles a cyder mill. After the berries have been ground in this mill until the husks are reduced to chaff, the whole is passed through the fanner, which blows off the chaff, and the coffee falls down a sloping board behind the fanner. The bad, black, or broken, grains, as well as small stones, or other substances that may have fallen among it, are picked out by the hand, and the coffee is then fit for market.

The best and smallest coffee is produced by old trees, and, to have it in perfection, it should be allowed to remain on the tree, until the skin shrivels and the fruit is ready to drop off. The Arabians spread cloths underneath the trees, and shake them when the fruit is sufficiently ripe to drop off readily; and there is no doubt that the berries which drop off themselves through ripeness make the best flavoured coffee.—Age is said to add much to its good qualities, and the superiority of Eastern to West-India coffee has chiefly been attributed to this circumstance; the former being much older before it reaches the European market than the latter. Dr. Fothergill mentions, that he conceives the dryer the soil, and the more it assimilates to the dry, hot, sandy, soil of Arabia, the smaller the grain will be, and the better flavoured; in old coffee-trees the fruit is smaller and better, on the same principle that the fruit of young walnut trees is large, watery, and insipid, but as the tree grows older the nuts decrease in size, and their taste becomes more agreeable. The doctor mentions, that having received a present of raw coffee from the West Indies; which was so ill tasted as to be unfit for use, but, being laid by in a dry closet for a year, was again tried, and found to be greatly amended. In another year, he thought it would be little inferior to the Asiatic, if it continued to amend in proportion. Mr. Edwards observes, that the notion that West India coffee is inferior to that of the East, as being the production of a coarser tree, needs no other refutation than the circumstance related by the celebrated gardener, Mr. Miller, “that from plants brought from the West Indies, and raised in English hot-houses, coffee berries have been produced, which, at a proper age, were found to surpass the very best Mocha that could be procured in Great Britain.” Mr. Miller does not seem to think that age is necessary to improve coffee; for, in another place, speaking on this subject, he says, “This scheme of keeping American coffee berries several years is contrary to all the experience I have had, and the information I can obtain from those who have seen the whole management of coffee in Arabia.—Two gentlemen, who had lived there some years, assured me that the berries when first gathered were much better than those which are kept any time; and a curious gentleman, who resided in Barbadoes two years, also told me, that he never drank better coffee in any part of the world, than what he made from the fresh berries, which he gathered himself, and roasted as he had occasion for them. This account is confirmed by trials with berries produced in our English stoves, which make a better flavoured liquor than the best Arabian coffee berries that can be procured in England.” There can be no doubt that the quality of the coffee, made in the West Indies, is frequently much injured in the voyage home, for, readily imbibing the smell or flavour of any

any article it comes in contact with, especially sugar, rum, or pimenta, and being stowed too near these commodities in the ship, they communicate their disagreeable taste and smell, which even the fire, in parching, cannot again separate from the coffee.—The greatest care should therefore be taken to keep such articles entirely separate, and to pack the coffee in the driest and soundest casks; and, if possible, to ship it on such vessels as are entirely loaded with coffee.

From many samples of Jamaica coffee, carefully cured and sent to London, it appeared that it was equal to the best Arabian coffee; and the dealers pronounced some of them even superior.

The following observations on the quality of coffee, are taken from Dr. Browne's History of Jamaica:

"It is a general remark in England, and indeed a certain one, that coffee imported from America does not answer so well as that of the growth of Arabia, nor is it owing (as some imagine) to any foreign fume or vapours it might have contracted in the passage, though great care should be always taken to prevent any acquisition of this nature; for even there, what is commonly used, will neither parch nor mix like the Turkey coffee; but this has been hitherto owing to the want of observation, or knowing the nature of the grain, most people being attentive to the quantity of the produce, while the qualities are but seldom considered.

"I have been many years in those colonies, and, being always a lover of coffee, have been often obliged to put up with the produce of the country in its different states. This gave me room to make many observations upon the grain, and I dare say they are such as will be constantly found true; and, if rightly regarded, will soon put the inhabitants of our American colonies in a way of supplying the mother country with as good coffee as we ever had from Turkey, or any other part of the world: For the easier understanding of this assertion, I shall set down the remarks I have made as they occur:

"1. New coffee will never parch or mix well, use what art you will. This proceeds from the natural clamminess of the juices of the grain, which requires a space of time proportioned to its quantity to be wholly destroyed.

"2. The smaller the grain, and the less pulp the berry has, the better the coffee; and the sooner it will parch, mix, and acquire a flavour.

"3. The drier the soil, and the warmer the situation, the better the coffee it produces will be, and the sooner it will acquire a flavour.

"4. The larger and the more succulent the grain the worse it will be, the more clammy, and the longer in acquiring a flavour.

"5. The worst coffee, produced in America, will in a course of years, not exceeding ten or fourteen, be as good, parch and mix as well, and have as high a flavour as the best we now have from Turkey, but due care should be taken to keep it in a dry place, and to preserve it properly.

"6. Small grained coffee, or that which is produced in a dry soil, and warm situation, will in about three years be as good, and parch as well as that which is now commonly used in the coffee houses in London.

"These are facts founded on repeated experiments, which I have tried from time to time, during my residence in Jamaica, though it be very rare to see what a man  
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may call good coffee in the island, for they generally drink it *a la Sultan*; \* and never reserve more than is sufficient to supply them from one year to another.

"I have examined the Turkey coffee with great care, since I came to England, and conclude, from the size of the grain, the frequent abortion of one of the seeds, and the narrowness of the skin that contains the pulp, that the shrub must be greatly stunted in its growth, and from hence judge that whoever endeavours to produce good coffee, and such as would mellow as soon as that of Arabia; or expect seeds that may have the same flavour, must try what can be produced on the lower hills and mountains of the southern part of the island."

An interesting analysis of coffee has lately been made by M. Cadet, apothecary in ordinary to the French imperial household; from which it appears, that the berries contain mucilage in abundance, much gallic acid, a resin, a concrete essential oil, some albumen, and a volatile aromatic principle, with a portion of lime, potash, charcoal, iron, &c. Roasting develops the soluble principles. Moccha coffee is of all kinds the most aromatic and resinous. M. Cadet advises that coffee be neither roasted nor infused till the day it be drank, and that the roasting should be moderate.

The various uses and great virtues of coffee, have been most clearly pointed out in Dr. Moseley's learned and ingenious Treatise, from which the following extracts are taken:

"After coffee has received all the excellence it can from the plant; it is a matter of great consequence, that proper care be taken in shipping it for Europe: it should not be put into parts of the vessel, where it may be injured by dampness, or by the effluvia of other freight. Coffee berries are remarkably disposed to imbibe exhalations from other bodies, and thereby acquire an adventitious and disagreeable flavour. Rum placed near to coffee will, in a short time, so impregnate the berries as to injure their flavour. It is said, that a few bags of pepper on board a ship from India, spoiled a whole cargo of coffee,

"The chemical analysis of coffee evinces that it possesses a great portion of mildly bitter, and lightly astringent gummy and resinous extract; a considerable quantity of oil; a fixed salt; and a volatile salt. These are its medicinal constituent principles. The intention of torrefaction is not only to make it deliver those principles, and make them soluble in water, but to give it a property it does not possess in the natural state of the berry. By the action of fire, its leguminous taste, and the aqueous part of its mucilage, are destroyed; its saline properties are created, and disengaged, and its oil is rendered empyreumatic. From thence arises the pungent smell, and exhilarating flavour, not found in its natural state.

"Imitations of coffee have been procured from roasted beans, peas, wheat, and rye, with almonds; but the delicacy of the oil in coffee, which the fire, in roasting, converts into its peculiar empyreuma, is not to be equalled.

"The roasting of the berry to a proper degree, requires great nicety. If it be under done, its virtues will not be imparted, and in use it will load and oppress the stomach: If it be over-done, it will yield a flat, burnt, and bitter taste, its virtues will be destroyed, and in use it will heat the body, and act as an astringent. The closer it is

\* This I take to be rather the infusion of the half burnt flakes of new coffee (for it never will parch, grind, or mix, properly while fresh), like that commonly used by the coffee planters in Jamaica, than a decoction of the coverings, as it is commonly reported to be.

is confined, at the time of roasting, and till used, the better will its volatile pungency, flavour, and virtues, be preserved. Coarse, rank, new, coffee is meliorated by being kept after it is roasted, before it is used.

“ The influence which coffee, judiciously prepared, imparts to the stomach, from its invigorating qualities, is strongly exemplified by the immediate effect produced on taking it, when the stomach is over loaded with food, or nauseated with surfeit, or debilitated by intemperance, or languid from inanition.

“ To constitutionally weak stomachs, it affords a pleasing sensation; it accelerates the process of digestion, corrects cruities, and removes the cholic, and flatulencies. Besides its effect on the gastric powers, it diffuses a genial warmth that cherishes the animal spirits, and takes away the listlessness and langour which so greatly embitter the hours of nervous people, after any deviation to excess, fatigue, or irregularity.

“ From the warmth and efficacy of coffee in attenuating the viscid fluids, and increasing the vigour of the circulation, it has been used with great success in some cases of fluor albus, and in dropsy; and also in worm complaints; and in those comatose, anasarous, and such other diseases as arise from unwholesome food, want of exercise, weak fibres, and obstructed perspiration.

“ In vertigo, lethargy, catarrh, and all disorders of the head from obstruction in the capillaries, long experience has proved it to be a powerful medicine; and, in certain cases of apoplexy, it has been found serviceable even when given in glysters, where it has not been convenient to convey its effects by the stomach. Mons. Malebranche restored a person from an apoplexy by repeated glysters of coffee.

“ There are but few people who are not informed of its utility for the head ache; the steam sometimes is very useful to mitigate pains of the head. In the West Indies, where the violent species of head ache, such as cephalæa, hemicrania, and clavus, are more frequent and more severe than in Europe, coffee is often the only medicine that gives relief. Opiates are sometimes used, but coffee has an advantage that opium does not possess; it may be taken in all conditions of the stomach; and at all times by women, who are most subject to these complaints; as it dissipates those congestions and obstructions that are frequently the cause of the disease, and which opium is known to increase, when its temporary relief is past.

“ From the stimulant and detergent properties of coffee, it may be used to an extent to be serviceable in all obstructions occasioned by languid circulation. It assists the secretions, promotes the menses, and mitigates the pains attendant on the sparing discharge of that evacuation.

“ In the West Indies the chlorosis and obstructed menses are common among laborious negro females, exposed to the effects of their own carelessness, and the rigorous transitions of the climate; there strong coffee is often employed as a deobstruent; which, drank warm in a morning fasting, and using exercise after it, has been productive of many cures. From its possessing these qualities, Geoffroy cautions pregnant women, and such as are subject to excessive menstruation, to use it in moderation.

“ The industrious overseers of plantations, and other Europeans employed in cultivation in the West Indies, who are exposed to the morning and evening dews, find great support from a cup of coffee before they go into the field: it fortifies the stomach, and guards them against the diseases incident to their way of life; especially in clearing lands; or when their residence is in humid situations, or in the vicinity of stagnant water. Those who are imprudently addicted to intemperance, find coffee a

benign restorer of the stomach, for that nausea, weakness, and disorderly condition, which is brought on by drinking bad fermented liquor, and new ruin, to excess.

"In continued and remitting fevers in hot climates, it frequently happens, at the period when bark is indicated, that the stomach cannot retain it. This is an embarrassment of great importance, in which the practitioner has an interval only of a few hours, to decide on his patient's fate. Bark in substance is required to answer the intention; and here, as well as in many cases of intermittents, when every other mode of administering bark has proved abortive, coffee has been found an agreeable and a successful vehicle. In obstinate remittents, where a course of bark has been long continued, it seldom fails to increase those visceral obstructions which are incidental to the disease itself. To assist the bark in its operation, I have often used coffee; and have known instances where it has removed slight intermittents; and for those obstructive, which the disease, or bark, or both, frequently leave after them, and which patients are often obliged to suffer, as the least evacuation brings on a return of the fever, I have also recommended coffee to make a considerable portion in the diet, with advantage. Coffee having the property of promoting perspiration, it allays thirst and checks preternatural heat. Sir John Chardin, when in Persia, cured himself of a bloody flux by drinking four cups of hot coffee, and going to bed, and covering himself well with bed-clothes. But this cure was occasioned by the perspiration it produced; though he attributed it to some specific quality in the coffee.

"The great use of coffee in France is supposed to have abated the prevalency of the gravel. In the French colonies, where coffee is more used than in the English, as well as in Turkey, where it is the principal beverage, not only the gravel, but the gout, those tormentors of so many of the human race, are scarcely known.

"Du Four relates, as an extraordinary instance of the effects of coffee in the gout, the case of Mons. Deverau. He says this gentleman was attacked with the gout at twenty-five years of age, and had it severely until he was upwards of fifty, with chalk-stones in the joints of his hands and feet; but for four years preceding, the account of his case being given to Du Four, to lay before the public, he had been recommended the use of coffee, which he adopted, and had no return of the gout afterwards.

"Coffee has been found useful in quieting the tickling vexatious cough, that often accompanies the small pox and other eruptive fevers. A dish of strong coffee without milk or sugar, taken frequently in the paroxysm of some asthmas, abates the fit; and I have often known it to remove the fit entirely. Sir John Floyer, who had been afflicted with the asthma from the seventeenth year of his age, until he was upwards of four-score, found no remedy in all his elaborate researches, until the latter part of his life, when he obtained it by coffee.

"Prepared strong and clear, and sweetened agreeably with sugar-candy, and diluted, while hot, with a great portion of boiling milk, it becomes an highly nutritious and balsamic diet; proper in such hectic and pulmonic complaints, where a milk diet is useful; and is a great restorative to constitutions emaciated by the gout and other chronic disorders. Nieuhoff, a German physician, in his account of the embassy from Holland to China, in 1675, first described the advantage of milk coffee in pulmonic complaints.

"Mons. Monin, an eminent physician of Grenoble, performed many extraordinary cures with it among consumptive people, when a milk diet, asses milk, and the air of Montpellier, had proved ineffectual. He relates the following case of his wife; of whom, he says, 'She had been in a consumption for sixteen years, and was at the point

point of death lately with a peripneumony. The inflammation of the lungs was removed by the ordinary methods in eight days; there remained a very troublesome cough, an heat in the lungs, and quick pulse, with a great dryness of the skin, which made me apprehend she would fall again into her consumptive state. I prepared her by gentle purgatives and aperient medicines, as her bowels were in a bad state, and her spleen obstructed, and put her on a course of asses-milk, which she took regularly for a month; but without the least success; her pulse remained the same, her cough was worse, she spit more, her complexion was yellow, sometimes greenish; she complained of heats and oppressions of her breast, notwithstanding the exact regimen, and gentle purgatives repeated every week. Finding that the asses milk was useless, I again put her on a course of her former milk-coffee, of which she took about a quart every day for six weeks, purging her every ten or twelve days. This course was so favourable to her, that all the symptoms before mentioned ceased in the first eight days; her appetite soon returned, and she grew more *en bon point* than she had ever been in her life.

"Long watching and intense study are wonderfully supported by it, and without the ill consequences that succeed the suspension of rest and sleep, when the nervous influence has nothing to sustain it. Thevenot says, 'When merchants in Turkey have any letters to write, and intend to do it in the night time, in the evening they take a dish or two of coffee, which is good to hinder vapours, head ach, and to take away sleepiness, &c. In short, in the Turks opinion, it is good against all maladies, and certainly it hath, at least, as much virtue as is attributed to tea; and as to its taste, by that time a man hath drank of it twice, he is accustomed to it, and finds it no longer unpleasant.'

"We are told that travellers in Eastern countries, and messengers who are sent with dispatches, perform their tedious journeys by the alternate effects of opium and coffee; and that the dervises and religious zealots, in their abstemious devotions, support their vigils, through their nocturnal ceremonies, by this anti-soporific liquor. Du Four says the poor people in Turkey use it through economy to save victuals; as frequently two or three cups of coffee is their whole sustenance in the course of a day. Bernier says, that the Turks, who frequently subsist a considerable time upon coffee only, look on it as an aliment that affords great nourishment to the body; for which reason, during the rigid fast of the *ramadam*, or Turkish lent, it is not only forbidden, but any person is deemed to have violated the injunctions of the prophet, that has had even the smell of coffee. Bacon says coffee 'comforts the head and heart and helps digestion.' Dr. Willis says, 'being daily drank, it wonderfully clears and enlightens each part of the soul, and disperses all the clouds of every function.' The celebrated Dr. Harvey used it often. Voltaire lived almost on it. He told me, nothing exhilarated his spirits more than the smell of coffee; for which reason he had what he used in the day, roasted in his chamber every morning, when he lived at *Fernal*. The learned and sedentary of every country have recourse to it, to refresh the brain oppressed by study and contemplation.

"Among the many valuable qualities of coffee, that of its being an antidote to the abuse of opium, must not be considered as the least; for as mankind is not content with the wonderful efficacy derived from the prudent use of opium, the abuse of it is productive of many evils that are only remediable by coffee; which counteracts the hypnotic or sleepy effects of opium. The heaviness, head-ach, giddiness, sickness, and nervous affections, which attack the patient in the morning, who has taken an  
opiate.

opiate at night, are abated by a cup or two of strong coffee. In military hospitals, in hot climates, recourse is often had to large and repeated doses of opium; from which I have frequently observed, that the retention of the stomach of the patient has been greatly injured; the secretion of urine impeded, or the bladder affected by a paralysis;—even these effects have been subdued by a few cups of strong coffee.

“ In habits subject to hæmorrhages, particularly those of the pulmonic and uterine kind, the interdiction of coffee is every where justly admitted.

“ A small cup or two of coffee, immediately after dinner, promotes digestion.

“ With a draught of water previously drank, according to the eastern custom, coffee is serviceable to those who are of a costive habit.

“ Coffee is not proper where there has been long sitting after dinner, when heavy meals of animal food have been made, and much Portugal wine has been drank; and never should be used after dinner, nor at any other time by those who intend to return to the bottle, and drink wine immediately upon it.

“ The mode of preparing this beverage for common use differs in different countries, principally as to the additions made to it: but, though that is generally understood, and that taste, constitution, the quality of the coffee, and the quantity intended to be drank, must be consulted, in regard to the proportion of coffee to the water in making it; yet there is one material point, the importance of which is not well understood, and which admits of no deviation: The preservation of the virtues of coffee, particularly when it is of a fine quality, and exempt from rankness, as has been said, depends on carefully confining it after it has been roasted, and not powdering it until the time of using it, that the volatile and ethereal principles, generated by the fire, may not escape: but all this will signify nothing, and the best materials will be useless, unless the following important admonition is strictly attended to; which is, that, after the liquor is made, *it should be bright and clear, and entirely exempt from the least cloudiness or foul appearance, from a suspension of any of the particles of the substance of the coffee.*

“ There is scarcely any vegetable infusion or decoction, whose effects differ from its gross origin more than that of which we are speaking. Coffee taken in substance causes oppression at the stomach, heat, nausea, and indigestion: consequently a continued use of a preparation of it, in which any quantity of its substance is contained, besides being disgusting to the palate, must tend to produce the same indispositions. The residuum of the roasted berry, after its virtues are extracted from it, is little more than an earthy calx, and must therefore be injurious. The want of attention to this circumstance, I make no doubt, has been the cause of many of the complaints against coffee, and of the aversion which some people have to it; and it is from this consideration that coffee should not be prepared with milk instead of water, nor should the milk be added to it on the fire, as is sometimes the case, for æconomical dietetic purposes, where only a small quantity of coffee is used, as the tenacity of the milk impedes the precipitation of the grounds, which is necessary for the purity of the liquor, and therefore neither the milk nor the sugar should be added, until after it is made with water in the usual way, and the clarification of it is completed. The milk should be hot when added to the liquor of the coffee, which should also be hot, or both should be heated together, in this mode of using coffee as an article of sustenance.

“ The Persians roast the membrane which envelopes the seed, and use it together with the seed itself, in their manner of preparing the infusion, and it is said to be a considerable improvement. The people of fashion among the Turks and Persians make a delicate drink from the capsules only, which is cooling and refreshing; particularly



gularly in summer time. This was much extolled by the French travellers, who saw no other coffee used at the houses of the great. This is called by the French, *café à la Sultan*."—*Moseley*.

The great superiority of coffee to tea, as containing more nourishment, and possessing so many qualities beneficial to the constitutions of mankind in general, most strongly recommend its general use, as a substitute for the expensive as well as pernicious East India plant\*: and this subject cannot be better concluded than by the following passage, from the *Supplement to the Encyclopedia Britannica*, under the word *coffee*:

"If a knowledge of the principles of coffee, founded on examination and various experiments, added to observations made on the extensive and indiscriminate use of it, cannot authorise us to attribute to it any particular quality unfriendly to the human frame;—if the unerring test of experience has confirmed its utility, in many countries, not exclusively productive of those inconveniencies, habits, and diseases, for which its peculiar properties seem most applicable—let those properties be duly considered; and let us reflect on the state of the British atmosphere, the food and modes of life of the inhabitants, and the chronical infirmities which derive their origin from these sources, and it will be evident what salutary effects might be expected from the general dietetic use of coffee in Great Britain."

Dr. Fothergill says that coffee made in the following manner is pleasing to most people, and is much preferable to tea or to coffee, made in the usual manner, for breakfast. Let it be made in the usual manner, only a third part stronger; let as much boiling milk be added to the coffee, before it is taken from the fire, as there is water; let it settle; drink it with cream or without, as may be most agreeable. Very little sugar, he says, ought to be used with coffee; on weak stomachs it is apt to become acid if made sweet; which is one reason why many people forbear drinking coffee.—Was coffee, he adds, substituted instead of the bottle after dinner, it seems more than probable that many advantages would flow from it, both to the health of individuals, and general œconomy; it seems probable, that by deferring coffee or tea so late as is usually,

\* The tea plant in its original state is of a poisonous nature. According to Kæmpfer it possesses a clammy, acrid juice, which is so corrosive as to excoriate the hands of those who prepare it for use: In order to correct this noxious quality, and the better to enable it to be rolled up or curled, it is either steeped in water, or steamed, by being put into a hot kettle just emptied of boiling water, in which the leaves are kept closely covered up until they become cold. They are then rolled up and dried on plates of iron or copper, from which some of their noxious qualities are said to be derived. Even in this state, they are considered to be so dangerous by the Chinese, that the leaves are not used for a twelve-month after they are plucked. Nay, after all these preparations, and after time has softened its acrimony, a strong extract of the juices has been attended with the most fatal consequences; and even the effluvia of the herb, long and frequently smelt at (as tea-brokers have frequently experienced), will occasion palsy, apoplexy, and other nervous disorders. The manner also in which it is brought from the East, in slight boxes lined with a composition of lead and tin, and exposed to be affected by the corrosion of those two metals (which the marine acid of the sea-water frequently brings to action), must render the article much more unwholesome here than in China: and not only is it a pernicious article of itself, but it is frequently mixed, both in Asia and in Europe, with a variety of other substances of a deleterious nature. There can be no doubt that tea is naturally pernicious; and, taken in any quantity, a poisonous plant; and that the use of it has occasioned the weak and enervated bodies of the Chinese. Adair, in his "*Essay on Diet and Regimen*," observes, that in proportion as its use has become general, many diseases, especially low fevers, hysterical, hypochondriacal, paralytic, and dropsical, have become more frequent, to which green teas have particularly contributed. Under these considerations it is a wonder this herb has so long kept its ground; and, in a political point of view, it is certainly a serious object, that it should be brought, at such an immense expence of treasure, from so great a distance, and from a foreign people; when our own colonies produce, in coffee, a beverage every way friendly to the human frame. —*See Sinclair's Code of Health*, v. 1, p. 224.

usually practised, we interrupt digestion, and add a new load of matter to that already on the stomach.

Dr. Hill mentions, among the Eastern nations they make coffee of the membranes surrounding the seeds, not of the seeds themselves, as we do; and adds, that a decoction of the raw or unroasted seeds is a powerful diuretic and sudorific; which medicinal quality may be useful in the strangury or suppression of urine. For this purpose a small table-spoonful of the grain, boiled in a quart of water, for a short time, is to be used as a common drink.

A dish of strong coffee newly roasted, and drank without milk, relieves the asthma.

Coffee, though it relieves the head-ache, yet, frequently in obstinate ones, it is necessary to add from twenty to forty drops of laudanum. Strong coffee is well known to occasion wakefulness, but, when used to excess, perhaps it is less generally known to lay a foundation for paralytic complaints.

The following directions for making coffee, by the Earl of Buchan, as well as the Arabian mode of preparing it, are taken from *Sinclair's Code of Health*, v. 1, p. 377:

"Roast the beans by a gradual application of heat, scorching but not burning them, keeping the roasting instrument all the time, and thereafter, excluded from evaporation in the air. Next pound the beans with a pestle and mortar to an impalpable powder, not grinding them with a coffee mill, as is usual, when they remain gritty, and unfit to afford a perfect tincture by boiling." Dr. Griffiths, in his *Eastern Tour*, gives the following account of the Turkish or Arabian mode of preparing coffee: "It is ground or beaten to an impalpable powder, and preserved closely, by pressing it down in a wooden box. The quantity required for use is scraped from the surface of the mass by means of a wooden spoon. Two small coffee pots are employed; in one is boiled the water, generally mixed with the remaining coffee of a former meal; in the other is put the fresh powder, which is sometimes placed near the fire, to become heated before the boiling water is added to it. The mixture is then boiled two or three times, taking care to pour a few drops of cold water upon it the last time, or to place a cloth dipped in cold water over it, then it is allowed to subside, and afterwards poured into the coffee pot, which contained only the boiling water."

"The quantity of coffee powder necessary to make a fine strong tincture of coffee may be estimated at one coffee cup of coffee powder, and three dishes of proper coffee liquor for the table."—*Sinclair's Code of Health*.

The agreeable liquor prepared from coffee seeds is said to have been drank from time immemorial in Ethiopia. Mr. Bruce, in his Travels, says that the Galla, a wandering nation of Africa, in their incursions on Abyssinia, being obliged to traverse immense deserts, and being also desirous of falling on the Abyssinians without warning, that they may be encumbered as little as possible with baggage, carry nothing with them to eat but coffee roasted till it can be pulverised, and then mixed with butter into balls, and put into a leathern bag. One of these, about the size of a billiard ball, keeps them, they say, in strength and spirits during a whole day's fatigue, better than a loaf of bread, or a meal of meat. It was introduced into Aden, in Arabia, from Persia, by Gemaleddin, only about the middle of the fifteenth century. Not long after it reached Mecca, Medina, &c. and Grand Cairo; hence it continued its progress to Damascus and Aleppo; and in 1554 became known in Constantinople; being introduced there by two persons, whose names were Shems and Hekin; one from Damascus, the other from

from Aleppo; each of which opened a public coffee house in that city. It is not certain what time the use of coffee passed from Constantinople to the western parts of Europe, but it is probable that the Venerians, on account of the proximity of their dominions, and their great trade to the Levant, were the first acquainted with it; and Pietro della Valle, a Venetian, in a letter from Constantinople, written in 1615, tells his friend that upon his return he should bring with him some coffee, which he believed was a thing unknown in his country. M. Thevenot, the French traveller in the East, at his return in 1657, brought with him to Paris some coffee for his own use. It was known some years sooner at Marseilles, namely, in 1644. M. De Tour, who wrote on coffee in 1685, says that the French knew nothing of it until 1645. M. La Roque, who published his journey into Arabia Felix, in 1715, contends that his father, having been with M. de la Haye, the French ambassador at Constantinople, did, when he returned to Marseilles, in 1644, drink coffee every day. He allows, notwithstanding, that Thevenot was the first who taught the French to drink it. However, till the year 1660, it was drank only by such as had been accustomed to it in the Levant; but that year some bales were imported from Egypt, and in 1671 a coffee house was opened at Marseilles. Before the year 1669, coffee was not known at Paris, except at M. Thevenot's, and some of his friends. This year it was effectually introduced by Solymán Aga, ambassador from Sultan Mahomet IV; and two years after Pascal, an Armenian, sold it publicly at the Foire St. Germain, and afterwards set up a coffee house on the Quai de l'Ecole; but, meeting with little encouragement, he left Paris and went to London. However, not long after, spacious rooms were fitted up at Paris, in an elegant manner, for selling coffee and other refreshments; and in a short time the number of coffee houses increased to three hundred.

The use of coffee was introduced into London some years earlier; for, in 1652, Mr. Daniel Edwards, a Turkey merchant, brought home with him a Ragusian Greek servant, whose name was Pasqua Rossee, and who understood the roasting and making of coffee. This servant was the first who sold coffee, and kept a house for the purpose in George Yard, Lombard-street; or rather, according to Mr. Houghton, in a shed in the church yard of St. Michael's, Cornhill, which is now, says he, 1701, 'a scrivener's brave house.' Mr. H. adds, that one Rastall, whom he knew, went to Leghorn, in 1651, and there found a coffee house; that he met Mr. Daniel Edwards there, with his Greek servant, and that Mr. E. was the first who brought the use of coffee to England, except it was the famous Dr. Harvey, who some say did frequently use it. Pasqua, being no free man, the ale-sellers petitioned the Lord Mayor against him. This made alderman Hodges, whose daughter Mr. E. married, join his coachman, Bowman, who was free, Pasqua's partner; and thus Mr. Rastall found them in 1654. But Pasqua, for some misdemeanor, was forced to run the country, and Bowman, by his trade, and a contribution of one thousand six-pences, turned the shed to a house. Bowman's apprentices were first John Painter, then Humphry, from whose wife Mr. H. had this account. The first mention of coffee in our statute books was in 1660, 12 Car. II. cap. 24, by which a duty of four pence was laid upon every gallon of coffee bought or sold. The first European author who has made any mention of coffee is Rauwolfus, who was in the Levant, in 1573; but it was first particularly described by Prosper Alpinus. Lord Chancellor Bacon likewise makes mention of it in 1624: he says that the Turks have a drink called coffee, made with boiling water, of a berry reduced into powder, which makes the water as black as soot, and is of a pungent and aromatic smell, and is drank warm. Faustus Nacionous Bainsius wrote the first treatise

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expressly on coffee, which was printed at Rome in 1671. Two English travellers notice this beverage at the very beginning of the seventeenth century: Biddulph about 1603, and William Finch in 1607. In 1688, Mr. Ray affirms, that London might rival Grand Cairo in the number of its coffee houses, and that they were to be found, not only in the capital, but in every town of note in England. Probably the ill-judged proclamation of Charles II. in 1675, to shut up coffee-houses, as seminaries of sedition, which was suspended in a few days, contributed much to establish them. Speaking of it as a drink, Mr. Ray says, it was very much in use, and supposes that the Arabs destroyed the vegetable quality of the seeds, in order to confine their commodity within the selves; and adds, that he wondered the neighbouring nations did not contrive to bring away some sound seeds or living plants, in order to share in so lucrative a trade. This was soon done; for Nicholas Witsen, burgomaster of Amsterdam, and governor of the East India Company, desired Van Hoorn, governor of Batavia, to procure from Mocha, in Arabia Felix, some berries of the coffee tree, to be sown at Batavia, which he having accordingly done, and, about the year 1690, having raised many plants from seeds, sent one over to governor Witsen, who presented it to the garden at Amsterdam; it there bore fruit, which in a short time produced many young plants. From these the East Indies and most of the gardens in Europe have been furnished; and so, early as the year 1696, the coffee tree was cultivated at Fulham by bishop Compton.

In 1714, the magistrates of Amsterdam presented Louis XIV. with a coffee tree, which was sent to the Royal Garden at Marly, under the care of M. De Jussieu, who had written a memoir, printed in the History of the Academy of Sciences for 1713, describing the characters of the genus, with a figure of it, from a small tree, which he had received from M. Pancras, burgomaster of Amsterdam, and director of the botanic garden there. In 1718 the Dutch colony at Surinam began first to plant coffee, and in 1722 M. de la Motte Aigron, governor of Cayenne, contrived by an artifice to bring away a plant from Surinam, which, in the year 1725, had produced many thousands. Rochon, in his account of Madagascar, asserts, that in 1718 the inhabitants of the isle of Bourbon sent to Moka and Aden for some young plants of the coffee tree, which being cultivated with care, became in a few years very productive, and the island soon afforded the French East India Company, a very important article of trade. In 1727, the French, perceiving that this acquisition might be of great advantage in their other colonies, conveyed some of the plants to Martinico. M. Fusee Aublet indeed affirms, that M. Clieux carried the first coffee plant to Martinico in 1720, and that the French East India Company sent some plants to the isle of Bourbon in 1717; that one plant only survived, which bore fruit in 1720, and many were produced from it. From Martinico it most probably spread to the neighbouring islands. It was first introduced into Jamaica in the year 1728, by Sir Nicholas Laws, and planted at Townwell Estate, now Temple-Hall, in Liguanea.\* In the year 1732 it was cultivated in this island under the encouragement of an act, 5th Geo. II. by which the duty was reduced on home consumption from two shillings to eighteen pence *per* pound. By a further reduction of the duty, in 1783, to six pence, the cultivation was very much extended, and produced considerably more to the revenue than the former heavy one. On this occasion Mr. Edwards observes, "Happily for the coffee planter in the British West Indies, the English market, by a prudent concession of government in 1783, was rendered more open to them. Before that period, the duties and excise on the importation and consumption

\* It has been asserted that seven berries only were brought to this island from St. Domingo, and that the owner of a tree, raised from one of them in Vere, sold its first produce at a bit a berry.

sumption of British plantation coffee in Great Britain were no less than four hundred and eighty *per cent.* on its marketable value. Under such exactions its cultivation in our sugar islands must, but for the American market, have shared the same fate as that of indigo. The great and important reduction of one shilling a pound from the excise duties, created an immediate and wonderful change; and, while it promoted the interest of the planter, it even augmented the revenue of the state; more than double the quantity of coffee having been brought to entry in 1784, than was entered in the year preceding, increasing the sum total of the duties (though reduced two-thirds) from £2869 10s. 10½*d.* to £7200 15s. 9*d.* an important proof among others how frequently heavy taxation defeats its own purpose."

An additional duty of six pence half-penny *per* pound was laid on coffee by the 35th Geo. III. cap. 13, but by the indefatigable exertions of Mr. Edgar Corrie, of Liverpool, and of several other West India gentlemen; a late most favourable and well-timed reduction of the duties has again taken place, from nearly two shillings *per* pound to seven pence, which it is expected will be the means of bringing it into general use in Great Britain; and in some measure counteract the ruin that threatened the planters from a prohibited commerce with the continent of Europe. It would from this also have been easy to prophecy an increased cultivation, had not the abolition of the slave trade rendered that impossible. From the consequences of this measure, notwithstanding every other encouragement, it is easy to foresee that a very rapid reduction of the exports from this island will speedily take place. The old settlements are yearly wearing out, many new ones have been thrown up, and no fresh settlement can be attempted. Under these inauspicious circumstances it is no improbable conjecture that in ten years, or even less time, the quantity of coffee exported from Jamaica will not be one half what it is at present.

The following statement will shew the wonderful increase which took place in coffee from the moment the duties were reduced, and which has not only promoted the prosperity of this island, but greatly increased the national commerce, wealth, and strength.

In the year 1752 the export of coffee from Jamaica was rated at 60,000*lb.* In 1775 it was 493,981*lb.*; until 1783 it never exceeded 850,000*lb.* when a reduction of the heavy duty upon it took place. In the year 1790 the quantity was trebled, exceeding two millions and a quarter. In the year 1795 it rose to 5,902,113*lbs.*; and the following is a statement of its progress since: the exports are as returned each year to the house of assembly by the naval officer:

		<i>lbs. coffee.</i>
From 30th September, 1800, to 30th September, 1801.....	1801.....	9,992,859
	1802.....	17,961,923
	1803.....	15,366,291
	1804.....	22,063,980
	1805.....	24,137,393
	1806.....	29,298,036
	1807.....	26,761,188
	1808.....	29,528,273
	1809.....	25,586,668

## 2. OCCIDENTALIS. WESTERN.

*Jasminum forte arboreum, foliis laurinis ex adverso nascentibus oblongis acuminatis flore albo.* Sloane, v. 2, p. 97, t. 205, f. 1.—  
*Foliis oblongo ovatis oppositis; stipulis setaceis petiolis interpositis.*  
 Browne, p. 142, t. 6, f. 1.

Flowers four-cleft; berries one-seeded.

This differs from the coffee tree in having the flower only four-cleft, and a single four-lobed seed at bottom. It seldom rises above six feet, upright, branching; the leaves are lanceolate-ovate, ending in a blunt point, quite entire, shining, petioled, opposite only on the young twigs, four or five inches long. Stipules alternate with the petioles, subulate, acuminate, upright, and opposite; racemes trichotomous, sometimes paniced, usually terminating, but sometimes axillary. The corolla is white and very sweet scented. Browne calls it the *wild jessamine*, and says it is pretty common in the lower woods; the flowers long and tubular.

## COGWOOD.

## LAURUS.

CL. 9, OR. 1.—*Enneandria monogynia.* NAT. OR.—*Holoraceæ.*

GEN. CHAR.—See Avocado Pear, p. 37.

## CHLOROXYLON.

*Foliis ovatis glabris rigidis trinerviis, floribus singularibus.* Browne, p. 187, t. 7, f. 1.

Leaves three-nerved, ovate, coriaceous; nerves reaching the tip.

Browne classes this plant *pentandria trigynia*, by the name of *greenheart* or *cogwood tree*. It is common in many parts of the mountains, and rises by a strong branched trunk to a very considerable height. The inward bark is of a light blood colour, and incloses a strong greenish timber within the sap. The leaves are smooth, of an oval form, and adorned with three considerable arched nerves each; they resemble those of the canaphire tree, both in shape, size, and texture. This tree bears its fruit, which seldom exceeds a naked hazel nut in size, scattered up and down upon the branches. The wood is very tough, hard, (and ponderous,) and observed to answer better than any other sort for the cogs used in the rollers of a sugar-mill, and generally esteemed one of the best timberwoods of the island, and used on all occasions where strength and durability is required.—*Browne.*

## COLT'S FOOT.

## PIPER.

CL. 2, OR. 3.—*Diandria trigynia.* NAT. OR.—*Piperitæ.*

GEN. CHAR.—Calyx an imperfect spathe; spadix filiform, quite simple, covered with florets; there is no perianth; no corolla; the stamens have no filaments; anthers two, opposite, at the root of the germ, roundish; the pistil has an ovate germ, no style; stigma three-fold, hispid; the pericarp is a roundish one-celled berry; seed single, globular. Many species of this genus are natives of Jamaica, the following, and those placed under the name *pepper-elder*:

## 1. UMBELLATUM.

## 1. UMBELLATUM. UMBELLED.

*Piper longum racemosum malvaceum.* Sloane, v. 1, p. 136. *Foliis amplis orbiculato-cordatis, sinu aperto, petiolis vaginantibus.*—Browne, p. 203.

Leaves orbicular-cordate, acuminate, veined; spikes umbelled; stem erect, grooved, pubescent.

Root annual; stem herbaceous, from one to two feet high, round, simple, jointed, hairy; leaves terminating, distant, spreading, entire, nerved and veined, wrinkled, somewhat hirsute underneath, the lobes of the base converging forwards; the nerves radiate from the petiole, which is almost in the middle of the leaf; petioles long, round, smooth, sheathing at the base, embracing. Spikes axillary, in umbels; umbellets pedate, with from three to six spikes, on short pedicels, upright, whitish. Calyx and corolla none, but roundish ciliate scales, whence the spikes appear sub-tomentose to the naked eye. Filaments approximating, two for each scale, very short; anthers roundish, white. Germ oblong, longer than the scale; style none; stigmas three, reflex, thick, black; visible only with a glass.—Sw.

Browne calls this the *open leaved colt's foot*, or *Santa Maria leaf*, which is very common in the woods of Jamaica, and seldom rises more than three or four feet above the roots, which are composed of short blackish fibres. The stalk it sends up is as thick as ones thumb, jointed, of a grey colour, rough, round, striated, with some furrows on it, having towards the top large round or heart-shaped leaves alternately; the footstalks of the leaves encompass the stalk, and leave a mark when they fall off. The nerves of the leaves run from the top of the footstalk as from a common centre, through the whole leaf, which is very soft, of a dark green colour, somewhat like those of mallows, and about seven or eight inches in diameter. The flowers and fruit come out, *ex alis foliorum*, being three or four *juli* two inches long, at first white, then green, standing on a common footstalk. The leaves being soft and large are applied to the head when it akes, and are thought to ease the pain; they may be boiled and eaten.—Piso says, that if the *juli* or pepper be boiled in water, and exposed to the sun, they grow stronger and more durable for all uses. The root smells like clover, and is hot to the third degree, reckoned a counter-poison, and of thin subtle, and therefore opening parts. If bruised and put like a poultice to any diseased part it ripens and cleanses. The juice of the leaves, because cold, eases burnings; and the leaves put into clysters have the same qualities as mallows.—Sloane.

Browne says there is a syrup made of it in many parts of our sugar colonies, which is much used by the inhabitants in colds and catarrhs.

Mr. A. Robinson mentions that he knew a lady violently afflicted with the tooth-ache, who applied a leaf of this plant to the affected part of her cheek at night, and perceived the pain gradually decrease, and, before the morning, entirely gone; but her cheek was pretty much swelled and inflamed, which was also cured in a little time by the same application. A surgeon at Bagnals informed him, that he found them very good pectorals by long experience, and used them in decoction or syrup.

## 2. PELTATUM. TARGET-LIKE.

*Foliis amplis orbiculato cordatis, peltatis; petiolis vaginantibus.*—Browne, p. 203.

Leaves.

Leaves peltate, orbicular-cordate, blunt, repand; spikes umbelled.

Browne calls this the *larger colt's foot*, with umbilicated leaves. He thinks it only a variation of the foregoing, or so like it, that the disposition of the sinus of the leaves makes the whole difference between them; and adds, that it is not used like the other.

See PEPPER-ELDER.

## COMINIA.

## ALLOPHYLLUS.

CL. 8, OR. 1.—*Octandria monogynia*. NAT. OR.—*Guttiferae*.

GEN. CHAR.—Calyx a four-leaved perianth, leaflets orbiculate, two exterior, opposite, smaller by half; corolla four-petaled, less than the calyx, orbiculate, equal, claws broad, length of the two smaller leaves of the calyx; the stamens have filiform filaments, the length of the corolla; anthers roundish; the pistil has a superior germ, roundish, twin; style filiform, longer than the stamens; stigma bifid, with the divisions rolled back. One species is a native of Jamaica.

## COMINIA.

*Baccifera Indica trifolia, fructu rotundo monopyreno*. Sloane, v. 2, p. 100, t. 208, f. 1. *Arborea foliis undulatis pinnato-ternatis, floribus minimis, racemis terminalibus*. Browne, p. 205.

Leaves ternate; flowers in panicles.

The stem is the thickness of the human thigh, rising thirty feet in height, with a smooth ash-coloured bark. Petioles two inches long, russet coloured and hairy. Leaflets four inches and a half long, two inches broad in the middle, dark green above, and woolly underneath. Flowers very numerous, whitish yellow, small, set very close to one another, round a stalk an inch and a half long, like an ament or catkin; there are three or four of these spikes, and several of them come from the ends of the twigs.—To these succeed small orange-coloured smooth berries, the size of small pins heads, having a single stone in them, with a thin brittle shell, and a large kernel in proportion to the fruit. It grows on the Red Hills, and in most woody hills, very plentifully in Jamaica. The pulp of the berries is very dry and little.—*Sloane*. Browne says he observed it about the Angels, and in the upper parts of Liguanea, growing in hedges, where it seldom rose above eight or ten feet; with roundish leaves, and the berries very thick and small.

## COMMELINE.

## COMMELINA.

CL. 13, OR. 1.—*Triandria monogynia*. NAT. OR.—*Ensatae*.

This name was given in honour of John and Caspar Commelins, brothers, and famous Dutch botanists.

GEN. CHAR.—Calyx a cordate spathe, converging, compressed, very large, permanent; the corolla has six petals, of which the three exterior are small, ovate, concave,



cave, resembling a perianth ; the three inferior ones alternate, very large, roundish, coloured ; nectaries three, resembling stamens, seated on their proper filaments, cruciform, horizontal ; the stamens are three filaments, subulate, reclined, agreeing in figure and circuit with the filaments of the nectary, but inferior to them ; anthers ovate ; the pistil has a superior roundish germ ; style subulate, revolute, length of the stamens ; stigma simple ; the pericarp a naked capsule, nearly globular, three-furrowed, three-celled, three-valved ; seeds two, angulated. Two species are natives of Jamaica.

## 1. COMMUNIS. COMMON.

*Procumbens foliis lanceolato-ovatis, floribus paucioribus, petalis duobus majoribus.*

Corollas unequal ; leaves ovate-lanceolate, acute ; stem creeping, smooth.

This plant has several trailing stalks, which put out roots at the joints, having one leaf at each joint, which is smooth, of a deep green, and marked with several longitudinal nerves, and embracing the stalk. Flowers axillary, two or three together on short peduncles : the corolla is composed of two large blue petals, and four small green ones. Browne calls it the *broad-leaved commelina*, which grows very commonly in the middle lands of Jamaica, growing in beds, and creeping generally along the ground, and throwing out a great number of leaves and small branches towards the top. It is accounted an excellent food for most sorts of cattle, especially those that give milk.

## 2 NUDIFLORA. NAKED-FLOWERED.

*Erecta simplex angustifolia, floribus singularibus.* Browne, p. 126.

Corollas equal ; peduncles capillary ; leaves linear ; involucre none ; flowers two-stamened.

Stem somewhat erect, decumbent at the base, somewhat scabrous ; leaves sessile, acute, sheathing ; peduncles terminating, two, a greater and a smaller ; flowers from four to six, pedicelled, nodding. Browne says it seldom rises above the height of nineteen or twenty inches, that it was pretty common in the mountains of Westmorland, but he had not seen it in any other part of the island.

See SPIDER WORT.

## CONTRAYERVA.

## ARISTOLOCHIA.

CL. 20, OR. 5.—*Gynandria hexandria*. NAT. OR.—*Sarmentaceæ*.

GEN. CHAR.—There is no calyx ; corolla one-petaled, tubulous, irregular ; base swelling, sub-globular, torulose ; tube oblong, hexagon-cylindric ; limb dilated, extended below into a long tongue ; the stamens have no filaments ; anthers six, fastened at bottom to the stigmas, four-celled ; the pistil has an oblong germ, inferior, angular ; style scarcely any ; stigma sub-globular, six-parted, concave ; the pericarp is a large capsule ; six-angled and six-celled ; the seeds several, depressed, incumbent. Three species are natives of Jamaica.

## 1. ODORATISSIMA.

## 1. ODORATISSIMA. SWEET-SCENTED.

*Aristolochia scandens odoratissima, floris labello purpureo, semine cordato.* Sloane, v. 1, p. 162, t. 104, f. 1. *Scandens, foliis cordato-acuminatis florum flabellis amplis purpureis.* Browne, p. 329.

Leaves cordate; stem twining, shrubby; peduncles solitary; lip of the corolla very large.

This is so called in Jamaica from its great efficacy against poisons, but is in no respect like the Spanish contrayerva; for this plant hath a long round geniculated root, in shape and bigness of long birthwort; so are its leaf and flower. It hath a round green climbing stem, taking hold of any tree or shrub, rising six or twelve feet high, covering them with its numerous branches. The leaves stand on the main stalks, cordate, of a dark-green colour; the flowers stand on a three-inch foot-stalk, like other birthworts, of a yellowish colour, the lip covered with a purple farina; the fruit is hexangular, two or three inches long, containing six cells, full of small flat odoriferous yellowish-brown seeds, of the shape of an heart. The roots and seeds are very bitter, hot, and odoriferous, and are most excellent alexipharmics or counter-poisons, strengthening the heart, stomach, and brain; they cure the bites of serpents, and the poison of Indian arrows. I am of opinion, it exceeds the Spanish contrayerva, especially in dropsies. I have seen wonders done with it: It drives out the small pox, measles, spotted fevers, plague, or any malignant distemper; it gently purges some by stool, but never fails working powerfully by urine, and sometimes by sweat. I have known it recover several in lingering distempers, when their appetites have been wholly lost and the use of their limbs, and that only by drinking a simple decoction of the root in water; but in wine it makes the best stomachic, it being excessive bitter and aromatic; also this makes the best bitter wine in the world, exceeding all in the dispensaries, or Stoughton's drops; and, if you add steel to it, it cures the green sickness, dropsies, opens all obstructions, sweetens the blood, and restores it to its due crasis.—*Barham, p. 44.*

This plant (which is the *lianne* or *serpent wythe* of the French, from its being an antidote to the poison of serpents) abounds every where among the woodlands and thickets on the south and north sides of the island, and rises frequently to a considerable height among the trees and bushes. It destroys worms, for which purpose the root (which has a strong smell) is chopped in small pieces, and given by the planters to their horses, mixed with corn, which destroys bots, and wonderfully recruits the animals flesh and strength.

It is so abundant in this island, that it may be collected, annually, in large quantities, for exportation, if there was a demand for it at the home market; and it seems to merit this encouragement, as it has been thought, by very able physicians, to be superior in efficacy to the Spanish contrayerva.—*Long, p. 717.*

## 2. TRILOBATA. THREE-LOBED.

*Scandens, foliis sublobatis obtusis, floribus amplissimis.* Browne, p. 329.

Leaves three-lobed; stem twining; flowers very large, bagged at the base; tongue linear, very long.

This

This is also a climbing plant, which Browne calls the *contrayerua* of the south side, and the former of the north side, where they are most common. He ascribes the same virtues to both species, and to be used in the same manner.

See PELICAN FLOWER.

COOPER'S WYTHE.—See HOOP WYTHE.

### CORAL OR RED BEAN TREE.

### ERYTHRINA.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceae*.

This generic name is derived from a Greek word, signifying red, the corolla being generally scarlet.

GEN. CHAR.—Calyx a one-leaved perianth, entire, tubular, mouth emarginate above, beneath furnished with a melliferous pore; corolla papilionaceous, five-petaled, standard very long; stamens ten-filaments, conjoined to the lower part, but little bent in; anthers ten, sagittate; the pistil has a pedicelled subulate germ, with a terminal simple stigma; the pericarp is an extremely long legume, protuberating at the seeds, terminated by a point, one-celled; seeds kidney-form.

#### CORALLODENDRON,

*Coral arbor*. Sloane, v. 2, p. 38, No. 10 & 11, t. 178, f. 1. *Arbo-rea, spinosa et non spinosa; foliis rhombicis, pinnato ternatis*.—Browne, p. 282.

Leaves ternate, unarmed; stem arboreous, prickly; calyxes truncate, five-toothed.

This tree rises generally to the height of sixteen or eighteen feet, sending out strong irregular branches, and grows in many parts of Jamaica. The leaves grow on long footstalks, the middle leaflet much larger than the other two; they are all heart-shaped, smooth, and of a deep green colour. The flowers come out at the ends of the branches, in short thick close spikes, of a deep scarlet colour; and make a fine appearance.—Browne observes that there were many reasons which induced him to think that this tree was not a native, but had been introduced into this island while the Spaniards were in possession.

*Bean Tree*.—This beautiful tree grows in plenty in most parts of America. In the island of Jamaica, they make fences of them, being very prickly. About Christmas, these trees are to be seen all full of large red flowers, without any green leaves, being very beautiful to the sight. After the flowers are fallen, the green leaves shoot out, and the fruit begins to appear, which is a pod about six or seven inches long, containing about eight or nine beautiful red beans, in the shape of kidney-beans. The trees are generally very large and spreading, armed full with black crooked thorns, like cockspurs; the leaves are like those of the physic-nut. The virtues of this plant have not yet been discovered, though I know by experience that the flowers make an excellent eye-water. Bontius saith, that the fruit is a great diuretic, and purgeth strongly water, and therefore proper in dropsies; he saith they expel wind, and cure the cholic.—Barham, p. 19.

It is propagated by slips or cuttings, or by the seed. It blossoms in three years from the seed, and has young pods about the middle of February; and by the latter end of March the seed is full grown, and of a beautiful red colour. The prickly species make good fences. They rise to the height of sixteen or eighteen feet. They were probably both introduced by the Spaniards, to be planted among their cocoa walks, where they lay most exposed to the weather, to break the impetuosity of the wind; and hence their common appellation of *madrê de cacao*, or mother of cacao.

A seed of the bean tree, being planted by a gentleman in his garden, for experiment sake, it was found, in two years nine months, to have grown to the height of seven feet, measured from the base of the root to the branches. The quickness of its ascent, and sturdiness, prove it admirably well adapted to be the protector of the young tender cacao plants.—*Long*, p. 788.

Ray says that the inhabitants of Malabar make sheaths of the wood for swords and knives. They use the same, together with the bark, in washing a sort of garments which they call sarassas; and make of the flowers the confection caryl. The leaves pulverised and boiled with the mature cocoa nut, consume venereal buboes, and ease pains in the bones; bruised and applied to the temples, they cure the cephelea, and ulcers: mixed with the sugar called jagra, they mitigate pains in the belly, especially in women; and the same effect follows from the use of the bark levigated with vinegar, or swallowing the kernel stripped of its red pellicle. The juice of the leaves, taken with oil sergelim, mitigates venereal pains; drank with an infusion of rice, it stops fluxes; made into a cataplasm, with the leaves of beteleira, it destroys worms in old ulcers; and worked with oil, it cures the psora and itching.—*Sloane*.

Two other species of this genus have been introduced, the *picta*, or prickly-leaved coral tree, a native of the East Indies; and the *herbacea*, or herbaceous coral tree, a native of South Carolina.

## CORATOE.

## AGAVE.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Coronarie*.

This generic name is derived from a Greek word, signifying admirable, glorious.

GEN. CHAR.—There is no calyx; corolla one-petaled, funnel (bell) shaped; border six-parted, equal; parts lanceolate-erect; the stamens are filiform erect filaments, longer than the corolla; anthers linear, shorter than the filaments, versatile: the pistil is an oblong germ, growing thinner towards both ends, inferior: style filiform, the length of the stamens, three-cornered; stigma headed, three-cornered; the pericarp is an oblong three-cornered capsule, three-celled, three-valved: seeds numerous. One species is a native of Jamaica. Linneus separated this genus from the aloe, because the stamens and style are extended much longer than the corolla, and the corolla rests upon the germ. There is also another difference in the growth of the plants, which is, that all the agaves have their central leaves closely folding over each other, and embracing the flower-stem, which is formed in the centre; so that these never flower until all the leaves are expanded; and when the flower is past the plants die; whereas the flower-stem of the aloe is produced

produced on one side of the centre, annually from the same plant, and the leaves are more expanded than in this genus,

AMERICANA. AMERICAN.

*Aloe secunda seu folio in oblongum, aculeum apicula. Sloane, v. 1, p. 246. Foliis sub-compressis mucronatis, ad margines spinosodentatis; scapo valido assurgenti, racemo spatioso ramosa. Browne, p. 199.*

Stemless; leaves tooth-thorny.

There are but few plants more common than this in Jamaica. It grows naturally in the most barren rocky hills, and, when it flowers, affords the most pleasing sight of any shrub or plant in that part of the world. This curious plant throws out some sharp-pointed, indented, leaves, that spread into a tuft about the root at first, and continue to increase, though slowly, both in size and quantity of foliage, for many years: at length it acquires a certain degree of perfection, and then throws up a stem from the centre of its leaves, which generally rises to the height of eight or ten feet above the root. This is simple and naked immediately above the leaves, but very much divided and branched towards the top, where it bears almost an infinite number of moderately large yellow flowers, by which it may be distinguished for many miles. The stalk is very short during the first stage of the plant, and the leaves disposed closely together, standing in an oblique or erecto-patent position, and shooting gradually one above another, while a few of those nearest to the ground wither wholly away; but, when it begins to throw up a stalk, the circulation grows very strong, and this part is generally completed, and fully adorned with its blossoms, in a few weeks. The natural operations of propagation are then carried on with great vigour, and the whole top soon after appears adorned with a thousand vegetated seeds, or rather plants, furnished with a convenient number of roots and leaves, to seek and raise the necessary food whenever they fall from the parent stalk; but this seldom happens until they have acquired a stated degree of perfection, and then they are blown off gradually by every wind that shakes the withering stem, which, with the leaves, now dies gradually away, and ends its life with the completion of the last, leaving so many thousands to renew the kind.—The leaves of this plant are pretty succulent, and generally used to scour both floors and kitchen utensils, which it does admirably well. The pulp is a warm pungent detergent, and would probably prove a very active medicine in many cases, properly prepared and administered. The inward spongy substance of the decayed stalk takes fire very readily, when thoroughly dried, and for this reason is generally used instead of tinder.—*Browne.*

The following observations on this vegetable are from the manuscript of Mr. A. Robinson:

“The leaves of one of these plants measured five feet and a half in length, at the base next the stem they measured six inches in breadth and four and a half in thickness, about twelve inches from the stem they measured but five inches in breadth, whence they increased in breadth and thickness, their greatest breadth being about twelve inches, decreasing from thence to their extremity, where they end in a thorn, which is not very strong. The leaves are lightly dented on their margins, which are furnished with sharp but very short thorns, hooked inwardly, hardly exceeding the eighth part of an inch in length: The leaves grow circularly in an erecto patent posture, and

are remarkably elegant and graceful in their form ; if viewed edgeways they form the Hogarthian line of beauty : when the plant is in bloom the leaves are then patent, which posture they are thrown into by their being elevated by the base of the stem on which they then seem all to be placed, and also by reason of their want of nourishment, the juices being all conveyed to the support of the stem and fructifications. When the plant is near blossoming it emits from the centre a few narrow leaves, much shorter than the rest, which keep their erect posture when all the rest are declining. The stem measured about four feet from the ground eighteen inches in circumference.—When the leaves of the coratoe are raised on the stem, they are then seen to grow in a regular manner round it, in the following order : They were disposed or divided into thirteen series or rows, in each row or series they were placed one above another, the concave or upper part of the lower leaf receiving the convex or lower part of the upper one. The flowering stem began to rise about Christmas, and in the beginning of March the flowers began to open. The nightingales or mock birds are fond of the honey found at the base of this flower, which supplies the place of a nectarium. The Barbadoes blackbirds are also fond of this honey, between which birds happen great dissensions and bickerings. If the blackbirds would hold their tongue, who are naturally very loquacious, they might feed unmolested ; but their incessant chattering disturbing the nightingales, who then had young ones, they assaulted the blackbirds with great fierceness and vigour, and soon obliged them to retreat to the neighbouring bushes.

“The coratoe of Jamaica does not appear to me to be the *agave* of Linneus, the flowers have no tube, the style is trigonal, and longer than the stamens, but in the agave it is not so long ; the stigma is however trisulcated ; the corolla of the coratoe is bell-shaped, cut almost to the base into six erect segments, broad beneath, but sharp pointed or subulated above, and ribbed on their sides ; there is no calyx, and the corolla is placed on the germen, which turns to a trigonal tricapsular fruit, in which last circumstances it agrees with the agave of Linneus. Other specific differences are as follow : the corolla is not above an inch in length, whereas the agave's corolla is four. The stem of the coratoe never branches, nor does the plant, ever that I have seen, emit more than one stem, nor does it ever produce any off-sets, in all which it differs from the agave of Linneus, or American aloë.”

I take this name (*currato*) to be a corruption of *caragua*, for so it is called in Brasil. It is of the aloetic kind, and I have made an extract out of it much like aloes. Its juice, with a little sugar, will powerfully force the terms, is a great diuretic, and forces gravel or stone ; the leaf, roasted in the fire, takes away the pain and weakness of the limbs. The extract eases the pain of the gout, and strengthens the part, if strained, stuck upon leather, and applied thereto : At first applying it seems to increase the pain, for it draws strongly a sort of dew from the part, but, after three or four hours, the pain ceases, and the part grows stronger every day ; it must lie on until it drops off.—I always stuck it upon white paper, and applied it to myself, and in two or three days was able to walk three or four miles, &c. If the extract is not well boiled, it will draw pimples, and cause a great itching. I have given it inwardly in pills, with good success. It is also called *maguly*.—*Berham*, p. 49.

The juice of the coratoe leaf is noticed in Dancer's Medical Assistant to be a good dressing for an ulcer, by mixing it with lime juice and molasses, and boiling to a thick consistence.

consistence. The fibres of the leaves are easily separated by bruising and steeping them for some time in water, and afterwards beating them until they are entirely disentangled; these fibres make an excellent strong thread for the common uses of clothing, fishing lines, ropes, nets, &c. A method of preparing vegetable soap from the juices was discovered by Mr. Anthony Robinson, who received a premium from the house of assembly for it. The following is the mode of procuring it, laid before that house in the sessions of 1767:

"The lower leaves of the moderately grown plants may be cut off for use, without injury to the other parts, but care must be taken not to cut off so great a quantity, as to prevent the plants from flowering or vegetating; for, by such means, the planter will never be able to increase his stock.

"The plant blossoms in the spring, and the whole top of many of them is then covered with a number of little plants, which are to be carefully gathered as the stem withers, and planted in the fissures of the rocks, where there is some soil, and at proper distance, making allowance for the spreading of the plants, which, when arrived at maturity, expand fourteen or fifteen feet:

"Or, they may be planted in the worst savanna soil, where the prickly pears, and such like plants, are usually found.

"When the leaves are cut off for use, the most expeditious way of obtaining the juice is, by passing them singly, with the point foremost, through the rollers of a common cane-mill, and straining it through an hair-cloth, crocus, or coarse blanket.

"The leaves, after being pressed, and the juice strained in this manner, may be soaked in water a few days, and then dried, cleansed, and the fibres manufactured into ropes for plantation use.

"In places where the convenience of cane-mills cannot be had, proper hand-mills, with two or more rollers of *lignum-vitæ*, or other hardwood, to be worked by a negro or negroes, may be erected at a very trifling expence; where these are not erected, the juice may be obtained for the use of private families, by cutting the leaves in pieces, and bruising them with an heavy pestle, in a wooden mortar, and then pressing the bruised pieces in a cassava or other press, or finally with hands, if other means are wanted:

"The juice being thus extracted and strained, may be inspissated by three several processes:

"The first by common coction, in a copper, tin, or iron vessel, over a slow fire, frequently stirring the liquor during the operation, to prevent its burning, which it will be apt to do, without proper care, and thereby lose somewhat of its deterative quality.

"The second is by coction in *balneo mariæ*; for example, put the extracted juice into a tache or boiler; and place the tache or boiler within one of the largest coppers, upon a trivet, or other support, in such manner as to prevent the tache or boiler from touching the sides or bottom of the copper; put such proportion of water into the copper, that, in case of ebullition, it may not flow into the tache or boiler, and mix with the juice; let the water in the copper boil with a brisk fire, and continue the process until the juice in the tache is gradually brought to a due consistence; by this method of preparation, it will be effectually secured from burning.

"The third method is by insolation, or exposing the juice, after straining, in a large shallow receiver of wood, or metal of any kind, to the action of the sun and breeze. The soap prepared in this manner, is found to be the most detergent.

"When

"When the juice or extract is, by either of the preceding methods, brought to a due consistence, it may be manufactured into balls, about the size of common wash-balls, dried in the shade, and kept for use; and, to prevent their sticking together, or to the hands, nothing is more proper than the fine ashes of the lye-tub, which may be found on most estates, or may be prepared occasionally, being first dried and sifted.

"A caution must be used, never to compound the extract with tallow, or any other unctuous materials, for any mixture of that kind will render it much less efficacious."

CORK-TREE—See DOWN TREE.

CORK-WOOD—See ALLIGATOR APPLE.

CORN—See GREAT CORN and GUINEA CORN.

### COTTON.

### GOSSYPIUM.

CL. 16, OR. 6.—*Monadelphia polyandria*.

NAT. OR.—*Columnifera*.

It is thought this generic name is derived from an Egyptian word.

GEN. CHAR.—Calyx a double perianth; outer one-leaved, trifid, flat, larger; inner one-leaved, bluntly emarginate, in five rows, cup-form; the corolla has five petals, ob-cordate, flat, spreading, fastened by their base to the tube of the stamens; the stamens are numerous filaments, uniting at bottom into a tube, separate at and below the tip, lax, inserted into the corolla; anthers kidney-form: the pistil has a roundish germ, style columnar, the length of the stamens, stigmas three or four, thickish; the pericarp is a roundish capsule, acuminate, three or four-celled; partitions contrary; the seeds are very many, oval, involved in cotton.—Two species grow in Jamaica.

1. BARBADENSE. BARBADOES.

*Gossypium Brasiliense flore flavo*. Sloane, v. 2, p. 67. *Fruticosum, foliis trilobis, seminibus majoribus*. Browne, p. 283.

Leaves three-lobed, quite entire, with three glands underneath.

Stem from six to fifteen feet in height, suffruticose, biennial, smooth; branches almost erect, round, and smooth or pubescent; leaves alternate, the upper three-lobed, the lower five-lobed; lobes ovate, acute, nerved, smooth above, but pubescent underneath; petioles five or six inches long, roundish, patulous, smooth, or sometimes pubescent. Glandular pores commonly three, on the midribs of the leaves underneath. Peduncles opposite to the petioles and shorter, thickish, round, striated, pubescent, one-flowered. Flowers large, yellow, turning finally reddish. Outer calyx half five-cleft; segments ovate, acute, smooth, or pubescent, or having black atoms scattered over them: inner having three or five minute blunt teeth: petals having a purple spot at the base, and smooth on the outside. Filaments shorter than the petals; anthers yellow or fulvous; germ roundish, acuminate; style three or five-cleft at top; capsule ovate-roundish, smooth, sometimes dotted with black, three-celled, three-valved; seeds oblong, eight to twelve, black, easily separated from the cotton.—Sw.

The following account of cotton, its cultivation, and manufacture, is taken from Mr. Edwards History of the West Indies:

“That



" That beautiful vegetable wool, or substance, called *cotton*, is the spontaneous production of three parts of the earth. It is found growing naturally in all the tropical regions of Asia, Africa, and America; and may justly be comprehended among the most valuable gifts of a bountiful Creator, superintending and providing for the necessities of man.

" The cotton wool, which is manufactured into cloth (for there is a species in the West Indies, called *silk* or *wild cotton*, unfit for the loom), consists of two distinct kinds, known to the planters by the names of *green-seed-cotton* and *shrub-cotton*; and these again have subordinate marks of difference, with which the cultivator ought to be well acquainted if he means to apply his labours to the greatest advantage.

" Green-seed cotton is of two species; of one of which the wool is so firmly attached to the seed, that no method has hitherto been found of separating them, except by the hand; an operation so tedious and troublesome, that the value of the commodity is not equal to the pains that are requisite in preparing it for market. This sort therefore is at present cultivated principally for supplying wick for the lamps that are used in sugar boiling, and for domestic purposes; but the staple being exceedingly good, and its colour perfectly white, it would doubtless be a valuable acquisition to the muslin manufactory, could means be found of detaching it easily from the seed.

" The other sort has larger seeds, of a duller green than the former; and the wool is not of equal fineness; though much finer than the cotton wool in general cultivation; and it is easily separated from the seed by the common method, hereafter to be described. I have been told that this species of the green seed cotton is not sufficiently known to the planters in general, (being usually confounded with the former) or that probably it would be in high estimation.

" Both the species above-mentioned, though they produce pods at an early stage; when they are mere shrubs, will, if suffered to spread, grow into trees of considerable magnitude, and yield annual crops, according to the season, without any kind of cultivation. The blossoms put forth in succession from October to January, and the pods begin to open, fit for gathering, from February to June. I now come to the

" Shrub cotton, properly so called. The shrub itself very nearly resembles an European corinth bush, and may be subdivided into several varieties, all of which, however, very nearly resemble each other. These varieties (such of them at least as have come to my knowledge) are

" 1st, *The common Jamaica*; the seeds of which are oblong, perfectly smooth, and have no beard at the smaller end. The staple is coarse, but strong. Its greatest defect is, that the seeds are so brittle it is scarce possible to render it perfectly clean; on which account it is the lowest priced cotton at the British market. Such, however, is the obstinacy of habit, that few of the British cotton planters give themselves the trouble to select, or seem indeed to wish for a better sort.

" 2d, *Brown-bearded*.—This is generally cultivated with the species last mentioned; but the staple is somewhat finer, and the pods, though fewer in number, produce a greater quantity of wool. The shrub gives likewise a better ratoon; it is therefore the interest of the cotton planter to cultivate it separately. The only disadvantage attending it is, that it is not so easily detached from the seed as the other, and therefore a negro will clear a few pounds less in his day's work.

" 3d, *Nankeen*.—This differs but little in the seeds or otherwise from the species last mentioned, except in the colour of the wool, which is that of the cloth called *nankeen*. It is not so much in demand as the white.

" 4th,

" 4th, *French* or *small seed*, with a whitish beard. This is the cotton in general cultivation in Hispaniola. Its staple is finer, and its produce equal to either of the three species last mentioned, as the shrub is supposed to bear a greater number of pods than the Jamaica or the brown bearded, but is less hardy than either.

" 5th, *Kidney cotton*, so called from the seeds being conglomerated or adhering firmly to each other in the pod. In all the other sorts they are separated. It is likewise called *chain cotton*, and, I believe, is the true cotton of Brasil.—The staple is good, the pod large, and the produce considerable. A single negro may clear with ease sixty-five pounds a day, besides which, it leaves the seeds behind unbroken, and comes perfectly clean from the rollers. It is therefore improvident, in the highest degree, to mix this species with any other.

" On the whole, the most profitable sorts for general cultivation seem to be, the second of the green-seed, the French or small-seed, and the Brazilian. The mode of culture is the same with all the different species, and there is this advantage attending them all, that they will flourish in the driest and most rocky soils, provided such lands have not been exhausted by former cultivation. Dryness, both in respect of the soil and atmosphere, is indeed essentially necessary in all its stages; for, if the land is moist, the plant expends itself in branches and leaves, and, if the rains are heavy, either when the plant is in blossom, or when the pods are beginning to unfold, the crop is lost. Perhaps, however, these observations apply more immediately to the French cotton than to any other.

" The plant is raised from the seed, the land requiring no other preparation than to be cleaned of its native incumbrances; and the season for putting the seed into the ground is from May to September, both months inclusive. This is usually done in ranks or rows, leaving a space between each, of six or eight feet, the holes in each row being commonly four feet apart.—It is the practice to put eight or ten of the seeds into each hole, because some of them are commonly devoured by a grub or worm, and others rot in the ground.\* The young sprouts make their appearance in about a fortnight, but they are of slow growth for the first six weeks, at which period it is necessary to clean the ground and draw the supernumerary plants, leaving two or three only of the strongest in each hole. One plant alone would be sufficient to leave, if there was any certainty of its coming to maturity; but many of the tender sprouts are devoured by the grub. At the age of three or four months, the plants are cleaned a second time; and both the stem and branches pruned, or, as it is called, *topped*; an inch (or more if the plants are luxuriant) being broke off from the end of each shoot; which is done in order to make the stems throw out a greater number of lateral branches. This operation, if the growth be over-luxuriant, is sometimes performed a second and even a third time. At the end of five months the plant begins to blossom and put forth its beautiful yellow flowers, and, in two months more, the pod is formed. From the seventh to the tenth month the pods ripen in succession; when they burst open in three partitions, displaying their white and glossy down to the sight. The wool is now gathered, the seeds being enveloped in it; from which it is afterwards extricated by a machine resembling a turner's lathe. It is called a *gin*, and is composed of two small rollers placed close and parallel to each other in a frame, and turned in opposite directions, by different wheels, which are moved by the foot. The cotton being put by the hand to these rollers, as they move round, readily passes between them, leaving the seeds,

\* The seed is apt to decay if planted too deep, especially in wet weather, therefore should be slightly covered at first.

seeds, which are too large for the interspace, behind. The wool is afterwards hand picked, that it may be properly cleared of decayed leaves, broken seeds, and wool which has been stained and damaged in the pod. It is then packed into bags of about two hundred pounds weight and sent to market."

An acre is said to produce from two to three hundred pounds, but the crops of this plant are very uncertain, for, as Mr. Edwards justly observes,

"Of all the productions to which labour is applied the cotton plant is perhaps the most precarious. In its first stage it is attacked by the grub; it is devoured by caterpillars in the second; it is sometimes withered by the blast; and rains frequently destroy it both in the blossom and in the pod."

A kind of cotton, called the *Bourbon*, was introduced into this island in 1795, being sent from the East Indies by Mr. Atkinson, of Bengal, to his brother. In his letter he states, "I have a species of cotton in my garden, the like of which has not been seen in this country, nor do I know where the seed came from. I send you a ripe pod or two inclosed, and forward a larger quantity of its seed, with the other articles I have mentioned. Its produce is extraordinary, and the staple remarkably fine; you shall have a sketch of the plant by a future opportunity, which will enable you to judge whether or not it is a native of the West Indies. If you have it not, I imagine, it will be a valuable acquisition; for the plant I have has been planted upwards of three years, is full eighteen feet high, and is still growing, and would break down with its weight of pods, was I not to prop it up."

The above seeds were planted in Mr. Mure's garden, grew extremely well, and bore abundantly. The cotton was considered by competent judges to be of a very superior quality to any hitherto produced in the West Indies. The staple is of a moderate length, and it parts freely from the seed.

The plant has since been much cultivated, and bears in the driest weather, indeed almost all the year round; being never out of season, and ever productive.

The following observations upon the *Bourbon* cotton are extracted from the *Bahama Advertiser*: "The species of cotton called *Bourbon*, having been found to answer uncommonly well, and a considerable quantity being now cultivated in these islands, renders it an object of importance, and any hints for the improvement of its culture, and preparation for market, will no doubt be listened to by our planters. Some complaints having been made by the manufacturers, that it would not card well, I suspect that the cause has been improper treatment after gathering it off the trees, such as not allowing it to dry sufficiently in the sun before it is put away in the barn, as it is more apt to heat, unless thoroughly dried and sunned, than any other cotton, and whipping it, either by hand or machines, in my opinion, does it some injury. You will therefore, it is probable, do some service to this colony, by publishing the following sentiments of a well informed planter upon this subject:

"It is now evident," says he, "that the complaints of the Liverpool manufacturers were well founded, and, I think, we have discovered the cause. Some of the *Bourbon* cotton, after being ginned, was cleaned in the common whipping machine, and whipped with switches, which rendered it impossible to card, without running into lumps or knots, the same was complained of in Liverpool. Another parcel, of the same cotton, was only cleaned by hand, without passing through any switching or machinery whatever, and this cotton not only carded well, but very fine thread was spun of it —

Ed.

Yours

You may depend upon it I shall not fail to avail myself of this discovery, which I hope will be the means of procuring at least such a price as was given to Mr. McIntosh, of the Caicos, two years ago."

An emulsion of the seeds of the *barbadense* are said to be good against the bloody flux, and are thought pectoral; the oil clears the skin of spots and freckles. The seeds yield a great quantity of oil by expression, and supply many plantations with that commodity. A tea made of the young leaves is good in a lax habit, and the patient should sit over the hot decoction of the same.

2. HIRSUTUM. SHAGGY.

*Procerius, foliis trilobis, seminibus minoribus virentibus.* Browne, p. 282.

Leaves five-lobed, with one gland underneath; the twigs and petioles pubescent.

Stem shrubby, a fathom in height, erect, striated; branches hirsute; leaves alternate; the upper ones undivided, cordate, acute, entire, rough with hairs about the edge; the lower three-lobed, the lobes little divided, ovate, acute, entire, hirsute beneath, smooth above; petioles round, striated, dotted with black, hirsute. There is a single glandular pore on the midrib underneath, and sometimes two or three on the next nerves. Peduncles three times shorter than the petioles, thick, stiff, hirsute, dotted with black. Outer calyx three or five cleft, segments ovate, acute, rough with hairs; the inner truncate, with three blunt teeth. Petals rounded, retuse, entire, yellow at the base, purple at the tip, pubescent on the outside; germ ovate, acuminate, dotted with black; style longer than the stamens, three or five cleft at top, inclined; capsule large, ovate, dotted with black, three-celled, three-valved; seeds ovate, acute, green.—Sw.

This shrub is planted in a few gardens in Jamaica, but is not much cultivated; for the cotton is not thought to be so good, and the seeds are so small, that it is a difficult matter to separate them from the wool. It grows, however, more luxuriant than the other, and rises generally from seven to nine feet in height, bearing a great number of seed vessels on all the branches.—Browne.

Swartz mentions a variety called *cotonier de soie*, the cotton of which is better than any of the rest.

COTTON TREE.

BOMBAX.

CL. 16, OR. 5.—*Monadelphica polyandria.* NAT. OR.—*Columnifera.*

GEN. CHAR.—Calyx a one-leaved perianth, tubular, campanulate, permanent; mouth three or five-cleft, obtuse, erect; corolla five-parted, spreading; segments oblong, concave; stamens five or many filaments, subulate, the length of the corolla, connate at the base; anthers oblong, bent in, incumbent; the pistil has a roundish germ; style filiform, the length of the stamens; stigma capitate, five-toothed; the pericarp is a large capsule, turbinate-oblong, five-celled, five-valved.

valved; valves woody; seeds very many, round, woolly; receptacle columnar, five-cornered, forming the partitions. Two species are natives of Jamaica.

## 1. CEIBA.

*Gossipium arboreum maximum spinosum folio digitato, lana sericia grisea.* Sioane, v. 2, p. 72. *Foliis digitatis, brachiis erecto patentibus.* Browne, p. 277.

Flowers many-stamened; leaves quinate:

This tree has a very round stem, greenish when young, and covered with short prickles, which disappear as the tree gathers strength and size. The leaves are then small and of a deep green colour. After a few years the trunk turns of a grey or ash-colour, and the tree grows to an enormous size. It branches towards the top, having leaves composed of five, seven, or more, smooth lanceolate leaflets, joined to a common centre, at their base, where they adhere to long footstalks. These fall off annually, and for sometime the trees are naked; before the new leaves come out, the flower buds appear in large tufts at the ends of the branches, and soon expand. They are composed of five-oblong petals of a dirty white colour, with a great number of stamens in the centre, and are succeeded by oval fruit, larger than a swan's egg; having a thick woody cover, which, when ripe, opens in five parts, and is full of a short dark cotton, inclosing many roundish seeds, the size of small peas. Browne calls this species the *silk cotton tree with erect branches*.

The stupendous size of these trees has attracted the notice of most travellers in the West Indies. They have been known to rise to upwards of one hundred feet in height, tapering from the base, and are frequently seen from fifty to eighty feet length of shaft, measured to the first insertion of the lower arms or branches, and from twelve to fourteen feet circumference. The wood is light and porous, and makes excellent canoes. In Columbus's first voyage, it is said, there was a canoe seen at Cuba made with one of these trees, large enough to contain one hundred and fifty men. When sawn into boards, and these afterwards well saturated with lime water rubbed into the pores, the wood bears exposure to the weather for many years; it is also formed into laths for roofs, curing pots, and hogshead healing. The leaves and buds, when young and tender, are very mucilaginous, like ochre, and boiled by the negroes as greens. The pods are pyriform, upwards of six inches long, and proportionably thick in the biggest part, tapering towards the pedicle, like the pear kind. It is sometimes used for stuffing pillow cases, and seems to possess the elasticity of the *eider down* as soon as it is impregnated with the warmth of the body; but it is thought unwholesome for West India beds, as it is apt to excite too strong a perspiration; it might probably answer better for winter coverlids in Great Britain. Whether it has a sufficient staple to be mixed to any advantage in fabrics of the loom experiment must determine.

When the tree decays, it becomes a nest for the *macaca beetle*; whose caterpillar, gutted and fried, is esteemed by many persons one of the greatest delicacies in the world.

The bark of the root has been sometimes used with success as a vulnerary and sub-stringent; and the seeds are administered in emulsions and pectoral infusions.—Long, p. 736.

Barham says the seeds of these trees are much of the same quality as the other cotton,

ton; its green bark, he says, made into a poultice, is good against inflammations.—Piso says the prickles being taken off and their juice squeezed out, a little quantity put into the eyes cures them when inflamed, and strengthens the sight.

2. PENTANDRUM. FIVE-STAMENED.

*Foliis digitatis, brachiis horizontaliter porrectis.* Browne, p. 277.

Flowers five-stamened; leaves in sevens.

This species is principally distinguished from the former by its horizontal branches, those of the *ceiba* being erect. They are both very common in Jamaica.

## COWITCH.

## DOLICHOS.

CL. 17, OR. 4.—*Diadelphia decandria.*

NAT. OR.—*Papilionaceæ.*

GEN. CHAR.—See Cat-Claws, p. 166.

PRURIENS. PURPLE.

*Phascolus utriusque Indię lobis villosis pungentibus minor.* Sloane, v. 1, p. 37. *Stizolobium. Pedunculis bipartitis alaribus.* Browne, p. 290.

Legumes in racemes; valves somewhat keeled, rough-haired; peduncles by threes.

This hath a fibrous root, and an herbaceous, climbing stalk, which is naked, dividing into a great number of branches; and rises to a great height, when properly supported. The leaves are alternate and trilobate, rising from the stem and branches about twelve inches distant from each other. The footstalk is cylindrical, from six to fourteen inches long. From the axil of the leaf descends a pendulous solitary spike, also from six to fourteen inches long, covered with long purple or blood-coloured papilionaceous flowers, rising by threes in a double alternate manner, from small fleshy protuberances, each of which is a short pedunculus of three flowers. These are succeeded by leguminous, coriaceous, pods, four or five inches long, crooked like an *Italic f*; densely covered with sharp hairs, which penetrate the skin, and cause very painful itching.—This plant grows among fences and ruin, being seldom allowed to grow in cultivated ground, because the hairs of the pods fly with the winds, and torment every animal they touch.

A decoction of the root of this plant is reckoned a powerful diuretic and cleanser of the kidneys; and a vinous infusion of the pods (twelve in a quart) is said to be a certain remedy for the dropsy; the dose half a pint, when made in beer.—*Browne.*—Grainger says that a fowl stuffed with cowitch, and made into broth, has sometimes carried off the dropsy by stool and urine. The roots of all the species of this genus are said to be diuretic.

The very valuable properties of the cowitch as a vermifuge, have been fully described by Mr. William Chamberlaine, surgeon, in his ingenious treatise upon worm complaints, from which the following extracts are made:

“The ill success of the cabbage bark in a few cases, induced me to make some enquiry concerning a medicine which I had heard of, as being successfully given, in many

many parts, to all patients afflicted with complaints arising, or supposed to arise, from worms; and that, not only by regular practitioners, but even by ignorant negroes, at random, and without any just proportion in the dose: This was *stizolobium*,\* or cowhage.

"Satisfied, as I said before, of the cabbage-bark-tree, I had never given myself the trouble to make enquiry about any other more powerful vermifuge; nor did I think there *could* be one more powerful, until the death of a negro girl, evidently occasioned, as appeared upon my opening her, from vast numbers of worms lodged in the small intestines, convinced me that I had not done my duty, and excited me to push my enquiries in search of a more efficacious medicine still farther.

"I had heard so much of the cowhage or cow-itch, that I resolved to make trial of it; but the different modes of exhibiting it were as various as the persons who took upon them that office. One administered it in molasses; castor oil was the favourite vehicle of a second; and a third insisted that it was of no service unless mixed with honey. The greater number agreed in giving molasses the preference; but there was even among these a considerable disagreement with regard to the proportions to be observed in the mixture. While some cautiously put two pods of the cowhage in a quart of molasses, others boldly stirred up two dozen in a like quantity. Some again would have six pods to be sufficient; and others imagined that some secret virtue or charm was to be expected, from having the number neither greater nor less than exactly *nine*.

"By some the *setæ* contained on the outside of a single pod, mixed with one or two table spoonfuls of syrup, honey, or molasses, was given for a single dose, without distinction, to young and old. By others, a quantity of each ingredient was mixed together, without bearing any proportion to each other, farther than was merely sufficient to bring the composition to the consistence of an electuary; and one, two, or three, tea spoonfuls given as a dose to children; and one, and sometimes two, table-spoonfuls to adults. As far as I could learn, however different the compositions and proportions of the ingredients, the effects were found to be nearly the same in all ages, sexes, and constitutions.

"I considered, that the wonderful efficacy so generally attributed to the cowhage, could not be supposed to arise from any specific medicinal quality residing in it, so much as from the sharpness and elasticity of the *setæ*, with which the pods are covered, which take the same effect on worms as they do when applied to our skin. The *setæ* piercing, vellicating, and tormenting, them in such a manner as obliges them to let go their hold; acting like so many needles, as may be plainly demonstrated by viewing the *setæ* through a microscope; which shews them to be a number of long spiculæ, needle-shaped, hollow, transparent, and armed with points, exquisitely sharp and fine.

"The idea that their action is merely mechanical is supported by the observations of several very judicious enquirers, who have made trial of the cowhage, particularly Dr. Leake; who, in his *Lectures on the Theory and Practice of Midwifery, and Diseases incident to Children*, enumerates the cowhage among the most effectual of those remedies, given to children, for worms. He supposes that it acts in the same manner as hair, cut fine, and given with the same intention—but much more effectual, because of its inflexibility, and the exquisite and almost inconceivable sharpness of its points.

"Curious

\* So named by Browne.

"Curious to know how far the application of the setæ to the external coats of worms bred in the human body, would affect those animals when expelled from the body, I waited not long before I had an opportunity of making the experiment. A calabash, full of very large ones, of the *teres* kind, in full vigour, voided by a poor emaciated patient, was brought to me. Among these I sprinkled some of the setæ. For a minute or two, no visible effect was produced; but, in a little time, they began to writhe and twist themselves in an unusual manner, and exhibited evident signs of extreme torture. I took one of the worms, and, viewing it through a magnifying glass, perceived that several of the setæ had pierced very deep, and others were sticking loosely in various parts of the body, but that none of the spiculæ, which had once entered into the skin, dropped off.

"Convinced, in a short time, both from what I had heard, and from my own experiment on the internal exhibition of the cowhage, of the safety and efficacy of this incomparable medicine, I laid aside the cabbage-tree bark, and for several years have used no other vermifuge than this.

"My usual way of preparing and administering it has been in the form of an electuary, with honey, melasses, or syrup, of a thick consistence, without observing any very exact proportion in the quantity of the setæ. Of this electuary a tea-spoonful is a sufficient dose to young children; and to adults one or even two table spoonfuls in a morning fasting. This may be repeated for two or three mornings; but, in general, there is seldom occasion to go beyond the third dose; and a gentle purge of some kind or other commonly completes the cure for the time.

"The above-mentioned vehicles (honey, &c.) blunt the spiculæ, and prevent their injuring the fauces and œsophagus; and are preferable to an oily vehicle, because, being diluted in the stomach, by the succus gastricus, the spiculæ are set free, and, regaining their elasticity, enter into action; whereas oil, being not easily soluble by the secreted fluids of the stomach, still continues to sheath the points of these little spiculæ, and carries them through that viscus, and the intestines, without setting them free; and, by its lubricating quality, prevents them from taking effect, or injuring the worms they are sent to destroy. Oil is, therefore, an improper vehicle; and this will appear still plainer, if we consider, that, to defend our hands from the troublesome effects of the setæ, when handling cowhage, it is necessary to oil the fingers.

"No anatomist will ask, whether these spiculæ may not be injurious to the coats of the stomach and intestines? but, as I have been asked this question by many people, who, ignorant of the structure of the intestines, and the nature of their mucus, were apprehensive of danger, and therefore afraid to venture on the medicine; it may not be amiss to remark, for the satisfaction of such as are in doubt concerning that point, that, if a little honey or treacle is sufficient to defend the tender nervous papilli of the mouth and fauces from the troublesome effects of the setæ, (which, when applied externally to any part of our skin, cause a most tormenting and intolerable itching, sometimes almost even to madness) certainly the mucus of the stomach and intestines will be very sufficient to defend those parts from the irritation of the setæ.

"Nevertheless, however inoffensive in general the cowhage may be, reason will dictate to us, that, where the mucus of the stomach and intestines is abraded, or lessened, from dysentery, cholera-morbus, or any other cause whatsoever; or where there is a tendency towards inflammation in any part of the intestinal canal, the exhibition of this medicine cannot be unattended with danger.

"I shall not go so far as to say, in praise of this, my favourite medicine, that I never



never knew it to fail; but I will say, that I have experienced more certain good effects, and fewer ill consequences, than from any other medicine, given with the same intention; insomuch, that I have, since I first began to exhibit the cowhage, had no occasion to look for any other vermifuge.

"The wonderful and salutary effects which I saw from the use of this medicine, both in my own practice, and that of others, among whom it obtained the same universality, and likewise among those, who, though not in the medical line, freely administered it, both to their own children and their negroes, without any dread of ill consequences, induced me, from the very first, to commit to paper my observations relative to the exhibition and effects of cowhage; hoping that it might be no unacceptable service to the community, to introduce into general practice in England, a medicine which, in the West Indies, is of such well known and indisputable efficacy. I shall, for the present, beg leave to give the remainder of this account of the cowhage or cowitch, in the words of those gentlemen who have obliged the world with an accurate description of this plant, and its uses, taken from the second volume of the Medical Commentaries."

Extract of a letter from Mr. Thomas Cochrane, surgeon, at Nevis, to Mr. John Baillie, surgeon at Edinburgh; concerning the use of cowhage, as an anthelmintic:—From the Medical Commentaries, vol. 2, part 1, page 82.

"There is a medicine which is much used here against worms. Planters give it to the negroes with great success; and I have ordered it myself both to children and adults with very certain good effects. The plant is here called cowhage, and is furnished with the *siliqua hirsuta* of Linnæus. The parts which are used are the hairy spiculæ, scraped from the pods, and mixed with syrup. They are supposed to act by promoting the peristaltic motion of the guts, and pricking the worms. The dose is not exactly limited; but the spiculæ obtained from a single pod are esteemed a sufficient dose for a child of seven or eight years old.

"This remedy is perfectly safe and innocent, although it occasions some uneasiness upon being first taken.\* I have seen large clusters of worms come away from the patients on the first dose. It is given at bed-time, and a purge in the morning. This practice is repeated after an interval of two days; and it is seldom necessary to give more than a second dose."

"From an accurate description, it appears, that the cowhage is the *dolichos pruriens* of Linnæus. Mr. Kerr has said nothing with regard to its medicinal virtues; but, in confirmation of Mr. Cochrane's account, we shall here present our readers with the testimony given concerning it by Mr. Bancroft, in his Essay on the Natural History of Guiana in South America, a work published at London some years ago.

"After mentioning the frequency of disorders arising from worms in that part of the world, and assigning some reason for it, he adds, 'But, from whatever cause these worms are produced, their number is so great, that the usual remedies are very insufficient for their destruction; for which reason the planters in general have recourse to the cowhage for that purpose. From whence its use was first suggested I am uncertain; but its efficacy is indisputable. The part used is the setaceous hairy substance, growing on the outside of the pod, which is scraped off and mixed with common syrup or melasses, to the consistence of a thin electuary, of which a tea spoonful to a child  
of

\* "Not if the syrup be thick enough; but, if the vehicle be too thin, or in a state of fermentation, the setæ occasion a tickling in the fauces, and are separated from their vehicle by the action of the tongue, and spit out."

of two or three years old, and double the quantity to an adult, is given in the morning fasting, and repeated the two succeeding mornings; after which a dose of rhubarb is usually subjoined.

"This is the empirical practice of planters, who usually, once in three or four months, exhibit the cowhage in this manner to their slaves in general; but especially to all their children without distinction; and in this manner I have seen it given to hundreds, from one year old and upwards, with the most happy success.\* The patients, after the second dose, usually discharged an incredible number of worms, even to the amount of more than twenty at a time; so that the stools consisted of little else than these animals. But, though these were indisputable proofs of its efficacy, I was far from being convinced of its safety. I observed, that the substances given, consisted of an assemblage of spiculae, exquisitely fine, and so acutely pointed, that, when applied to the skin, they excited an intolerable itching, and even inflammation; from whence I apprehended dangerous consequences from their contact with the stomach and intestines. Indeed, when mixed into an electuary, in the manner in which they are given, their elasticity is so impaired that they do not produce the same sensible irritation; but yet I could conceive no other quality, on which their efficacy depended; especially after I had prepared both a tincture and decoction from the cowhage, and given them to worm patients, without any sensible advantage. Influenced by these suggestions, I particularly examined the state and condition of all such patients as I knew had taken the cowhage; and yet, can with the greatest truth declare that, though prejudiced to its disadvantage, I was never able, either by my own observation, or a diligent enquiry, to discover a single instance of any ill consequence resulting from its use, which has been so extensive that several thousands must have taken it: and, as no ill effects have been observed, I think, not only its efficacy, but safety, are sufficiently evinced to entitle it to general use; especially when we reflect on the uncertainty, and even danger, which attends other vermifuges. It is to be observed, that this remedy is particularly designed against the long round worm; whether it is equally deleterious to the ascarides, or whether it has been used against them, I am uncertain."†

"I shall here subjoin a letter which I received from Mr. Neil Stewart, surgeon in Jamaica, relative to the success of the cowhage in his practice, as a farther confirmation of its utility and safety:

"Hope Estate, Liguanea, August 9, 1782.

"MY GOOD FRIEND,

"In compliance with your request, that I would give you my sentiments, and recommendation, of the cowhage, in writing, I now sit down to give you a history of it; but must premise, that you can expect no more than I have already so often assured you of, *viva voce*:—which is, that the cowhage, as a vermifuge, has not its equal in the world, either for certainty of its effects, or its perfect innocence. Too much cannot be said in the praise of that excellent medicine. I have, for my own part, given it for these ten years past, in all sorts of worm cases, both to old and to young, and with

\* "It was my constant practice, while in Jamaica, to have all the children of the estates and settlements that I had the care of, from the youngest infant to those of twelve years old, brought to me once in two months, to all of whom, without exception, I gave the cabbage-bark, and latterly the cowhage, for three mornings, whether they had symptoms of worms or not."

† "When we consider the nature of its operation, and that it is carried through the whole length of the intestinal canal, without suffering any alteration, I think there can be no sort of doubt of its being equally troublesome to every species of worm."

with such good success, that I have never had occasion to look for any other anthelmintic. I have totally discarded the useless *æthiops mineral*; the uncertain crude mercury, and the still more uncertain, and less innocent, preparations of it; such as calomel, corrosive sublimate, and so forth; and, in short, all other medicines given with the same intention, except cabbage-tree bark; and even that is not so great a favourite of mine as it formerly used to be; not that I have any reason to find fault with it, but only because I find the cowhage to answer every purpose I can want. I have given it even to tender and delicate white children under one year old, without any ill consequences. On the contrary, it has frequently brought away worms from them, even at so young an age. Every body, that gives it without advice, has a different way of preparing it; but the manner in which it is most commonly prepared, and the manner in which I myself order it, is to throw a dozen or two of ripe pods into a calabash or common quart punch bowl, full of melasses, and stir together, until the hairs or spiculæ are taken clear off the pod, and well mixed with the melasses. The pods being useless are then thrown away.

"Of this mixture I order the hot house man on every estate to give all the children, without distinction, a table spoonful, for three mornings, once a month; and not only to the children, but, if any of the grown negroes are suspected to have worms, it is likewise given to them, but in larger quantity; and it is inconceivable to one, who has not known the good effects of cowhage, what wonderful success it has in expelling every species of worms; and I can safely aver, I never saw any ill consequences, or had any complaints, from those for whom I have prescribed it, or recommended it to. However, I would not think it advisable to be given where there might be any disorder tending towards inflammation in any part of the alimentary canal, or where the natural mucus is defective.

"I agree with you, in supposing, that the cowhage acts mechanically, in the same manner as cut hair would do, from no intrinsic virtue; because a decoction of it is of no manner of use.

"I must desire you particularly to take notice that it is, and always has been, my practice to premise an emetic, where it can be done with propriety, previous to entering upon the cowhage. I have often found the good effects of it, which induces me to continue it. A gentle dose of ipecacuanha, or tatar-emetic, clears the stomach of matters which might impede the action of the cowhage; and, to children, a little oxymel of squills will answer the purpose: but some of the creoles, who seldom use an European medicine, when they can find an apothecary's shop in the bushes, never use any emetic for themselves or their negroes, but the wild ipecacuanha, or red-head.

"I have received the thanks of several ladies in and about Liguanea, and the mountains, and in the town of Kingston also, who have used the cowhage from my recommendation, both for their own children, and for their negroes. They are all lavish in praise of its virtues. In short, I think it may be looked on as a more certain specific in worm complaints than the Peruvian bark in the cure of intermittents. I am, &c. &c.

"Your's affectionately,

"NEIL STEWART."

See CAT-CLAW—HORSE, and HORSE-EYE, BEAN.

COWITCH CHERRY—See BARBADOES CHERRY.

## COWITCH, CREEPING.

## TRAGIA.

CL. 21, OR. 3.—*Monoecia triandria*. NAT. OR.—*Tricoccæ*.

This was so named in memory of Hieronymus Tragus, a German divine and physician.

GEN. CHAR.—The male calyx has a three-parted perianth; segments ovate, spreading; no corolla; stamens three filaments, the length of the calyx; anthers roundish. The females on the same plant; calyx, a five or six parted perianth; leaflets ovate, concave, acute, permanent; no corolla; the pistil has a roundish germ, three-grooved; style single, erect, longer than the calyx; stigma trifid, spreading; the pericarp is a tricoccous capsule, roundish, three-celled, hispid; each cell marked on the outside at the base with two dots; seeds solitary, globular.—Two species are natives of Jamaica.

## 1. VOLUBILIS. TWINING.

*Urtica racemosa scandens, angustifolia, fructu tricocco*. Sloane, *v.* 1, p. 123, t. 82, f. 1. *Scandens, foliis hastatis serratis hispidis*.—Browne, p. 336.

Leaves cordate-ovate, acuminate; stem twining.

This plant rises six or seven feet high, with a woody, reddish, striated, stem, suffrutescent, loose, roundish, stinging with its bristles: branches filiform, all directed one way, simple; leaves petioled, alternate, serrate, bent down, nerved, hispid with bristles; stipules lanceolate, opposite by the side of the petioles, which are long and hispid. Racemes peduncled, axillary, solitary, longer than the leaves, filiform, loose, composed of numerous very small male flowers, on very short pedicels, with minute awl-shaped bractes under the pedicels, and females at the base, pedicelled, solitary, larger. Calyx of the male three-leaved, leaflets coloured of a dark purple, filaments very short, contiguous: calyx of the female five-parted, germ hirsute, style trifid, stigmas revolute.—*Sw.*

Browne calls this the *creeping cowitch*, and says the footstalks of the flowers rise from the axæ of the leaves, and divide soon after into two simple branches; whereof the one bears a number of male flowers, disposed gradually in the form of a spike, towards the top; while the other sustains only a single female blossom, which is fixed at the extremity of the branch. There is no more than two filaments in each of the male flowers of this plant; and what Linnæus calls a cup or perianthium seems to be rather a real flower. The plant is very common in Jamaica, and well known on account of its sharp itching hairs. The root is looked upon as a good aperient and diuretic; and both the decoction and juice are frequently used among the negroes for those purposes.—*Browne, p. 336.*

## 2. MERCURIALIS. MERCURY.

*Subfruticosa, foliis oblongis glabris, fructu hispido*. Browne, p. 336.

Leaves ovate.

This plant has been considered only as a variety of the *chamaelea*, an East Indian species.

species. Browne calls it the *smooth-leaved cowitch*, and says he found it at the Angel's, at the side of the road, growing commonly to the height of four or five feet.

CRAB GRASS—See BENT GRASS.

*No English Name.*

CRANICHIS.

CL. 20, OR. 1.—*Gynandria diandria*. NAT. OR.—*Orchideæ*.

This generic name is from a Greek word signifying an helmet.

GEN. CHAR.—Calyx wandering spathes, no perianth; the corolla has five petals, oblong, sub-horizontal; the three outer (or two, upper lateral, and one anterior) ovate-lanceolate, equal, spreading; the two inner anterior scarcely smaller, more slender, ovate-lanceolate, erect. Nectary or upper petal (between the outer superior petals) galeate or vaulted, erect, ovate, gibbous, slightly keeled, entire at the tip, dotted within, covering and embracing the genitals behind; the stamens are two or four pedicelled anthers, placed on the apex of the style, turned towards the helmet; with an upright two-celled lid, fastened to the column of the style in front; they are covered at the back: the pistil has an ob-ovate germ, oblique, inferior; style an erect column, shorter than the helmet, dilated at the tip, obtuse, bearing the stamens at the back; stigma funnel-form, between the column of the style and the lid of the stamens; the pericarp is an oblong or ob-ovate capsule, attenuated at the base, three-cornered, three-keeled, one-celled, opening under the ribs, cohering at the tip and base: seeds numerous, very small, like sand or saw-dust, affixed to a columnar receptacle. Swartz discovered five species in this island.

1. APHYLLA. LEAFLESS.

Bulbs in bundles; columnar acute; scape almost naked; petals converging.

2. OLIGANTHA.

Bulbs in bundles, club-shaped; leaves petioled, oblong, acuminate, shining; scape almost naked; spike filiform; petals converging.

3. DIPHYLLA. TWO-LEAVED.

Bulbs in bundles, filiform, naked; leaves petioled, cordate, acuminate, twin; scape almost naked.

4. STACHYODES. STACHYS-LIKE.

Bulbs in bundles, columnar obtuse; leaves petioled, ovate-acuminate; scape sheathed; spike columnar; petals revolute.

5. MUSCOSA. MOSSY.

Bulbs filiform, in bundles, tomentose; root-leaves petioled-ovate; stem leaves sheathed; nectary dotted within.

CRESS—See INDIAN CRESS—PEPPER GRASS—WATER CRESS.

## CROSSWORT.

## VALANTIA.

CL. 23, OR. 1.—*Polygamia monoecia*. NAT. OR.—*Stellata*.

So named in honour of Sebastian Vaillant, an eminent French botanist.

GEN. CHAR.—There is no hermaphrodite calyx; the corolla is four-parted; stamens four-filaments; style bifid; seed one: there is no male calyx; the corolla three or four-parted; stamens three or four; pistil obsolete. One species is a native of Jamaica.

## HYPOCARPIA.

Rubia.—*Subhirsuta scandens vel reclinata, foliis cruciatis floribus singularibus ad alas*. Browne, p. 141.

All the flowers quadrifid below the germ; peduncles naked, one-flowered.

Stem herbaceous, from one to three feet high, loose, branched, grooved, rugged; branches opposite, numerous, divaricating, sub-divided, patulous, loose, hirsute.—Leaves in four's, sessile, small, oblong, entire, convex, channelled at the base above, hirsute-hispid. Flowers peduncled, axillary, small, yellow; peduncles shorter than the leaves or of the same length, pubescent; calyx four-leaved, inferior, scarcely bigger than the corolla; leaflets ovate with a short point, rough haired, rugged. Filaments very short, anthers roundish, very minute; germ superior, minute, two-grooved; style very short, pellucid; berries two, connate, fulvous, small, one-seeded; seeds roundish, whitish, shining.—*Sw.* Browne found this plant in the middle mountains of Liguanea; it is very weakly, grows in tufts, and seldom rises above two or three feet. Barham calls it *goose-grass*, from its resemblance to the plant known by that name.

## CRUCIATED GRASS.

## CHLORIS.

CL. 23, OR. 1.—*Polygamia monoecia*. NAT. OR.—*Gramina*.

GEN. CHAR.—The hermaphrodite calyx is a two-valved glume, two-flowered, awned; there is no corolla; there are three stamens, two styles, and one seed: the male calyx is a one-valved glume; the female calyx, a sessile two-valved glume. Five species are natives of Jamaica.

## 1. CRUCIATA. CRUCIATE.

*Gramen dactylon bicornis minimum aristis longis armatum*. Sloane, v. 1, p. 112, t. 69, f. 1. *Cruciatum spicis brevioribus et crassioribus, deorsum frugiferis*. Browne, p. 136.

Spikes about four, cruciate; florets pointed.

This has very small fibres or roots, from which rise small, narrow, capillary, pale green leaves about an inch long; from the middle of these rise very small jointed round stalks several inches high, having so many joints, and at each joint a leaf. At the top stands its panicle, divided into two spikes, like two horns, having a few seeds, each of which has an arista or awn.—*Sloane*. Browne says it is hardy and kind pasturage, and calls it the *short-shanked cruciated grass*.

## 2. CILIATA.

## 2. CILIATA. CILIATE.

Spikes digitate, about five; glumes ciliate on the edge.—Sw. This is the *andropogon pubescens*.

## 3. PETRŒA. ROCKY.

Spikes about four, stiff, nearly erect; spikelets crowded, glabrous, awnless; culm compressed.—Sw.

## 4. POLYDACTYLA. MANY-SPIKED.

*Gramen dactylon elatius spicis plurimis tomentosus*. Sloane, v. 1, p. 111, t. 65, f. 2. *Andropon* 1. Browne, p. 364.

Spikes numerous, fascicled, lax; glumes ciliate-villous on the margin.

This has a strong fibrous root, broad leaves of a pale yellowish green colour, like those of oats. The stem is knotted, rising three feet high, at the uppermost joint sometimes divided into two tops, the one flowered the other not. Several spikes, from four to eleven shoot from the same centre, hanging downwards, each about four inches long, and very hairy, downy, or woolly. It grew plentifully in the savanna by Two Mile Wood.—Sloane. This is the *andropogon polydactylon* of Linneus.

## 5. RADIATA. RADIATE.

*Gramen dactylon spicis gracilioribus plerumque quatuor cruciformiter dispositis*. Sloane, v. 1, p. 111, t. 68, f. 3. *Cruciatum assurgens, spicis subhirsutis tenuioribus et longioribus deorsum frugiferis*.—Browne, p. 137.

Spikes numerous, fascicled, nearly erect; florets subulate, glabrous.

This has a deep fibrous root, short and narrow leaves, a jointed, crooked, slender, white stem, about a foot and a half long, bearing generally four white slender spikes, standing crosswise, though sometimes they are three, six, or five, in number. On them stand the seeds in two-eared husks. This is the most ordinary grass in the savannas, its stalks remaining dry most part of the year, and the *andropogon fasciculatus* of Linneus.

## CUCUMBER.

## CUCUMIS.

CL. 21, OR. 10.—*Monoecia syngenesia*. NAT. OR.—*Cucurbitaceæ*.

GEN. CHAR.—Male calyx a one-leafed perianth, bell-shaped, the margin terminated by five subulate teeth; corolla five-parted, growing to the calyx, bell-shaped; divisions ovate, veiny-wrinkled; stamens three filaments, very short, inserted into the calyx, converging, two-bifid at the tip; the anthers are lines creeping upwards and downwards, outwardly adnate; receptacle three-cornered, truncated, in the centre of the flower. Female calyx, as in the male, superior, deciduous; corolla as in the male; no stamens; filaments three, acuminate, very small, without anthers; the pistil has an inferior large germ; style cylindric, very short; stigmas three, thick, gibbous, two-parted, turned outwards; the pericarp a three or four-celled pome, cells membranaceous, soft, separate; seeds numerous, ovate-acute, compressed, placed in a double order. Only one species of this genus is

a native of Jamaica, the *anguria*, or wild cucumber, the *sativus*, or common cucumber, as well as the *melo*, or musk melon, have both been introduced and successfully cultivated.

## 1. ANGURIA.

*Cucumis anguria folio latiore, aspero, fructu minore candido spinulis obtusis muricato.* Sloane, v. 1, p. 227. *Sub-hirsutus minor, foliis profunde sinuatis, fructibus muricatis.* Browne, p. 353.

Leaves palmate-sinuate; stem angular; fruit oval. echinate.

This has a deep white oblong root, sending forth several long trailing branches.—The stems are square, rough, five or six feet long, at every four inches distance having leaves, clavicles, and flowers. The leaves have five sections, curled, sinuated, and rough, the undermost sections near the base being the smallest, the fifth is three inches long and has two notches in it, they have four-inch long rough footstalks. The clavicles and flowers grow from the axæ of the leaves, which are yellow. The fruit is of a pale green colour, oval, as big as a walnut, having many short, blunt, thick, tubercles, sharper than those of other cucumbers, and within the pulp a great many small seeds. This fruit is eaten very greedily by sheep and cattle.—*Sloane*.

It is called the *small wild cucumber*, and grows very plentifully in Jamaica, where it is frequently used with other herbs in soups, and proves a very agreeable ingredient. The rind is thickly beset with blunt prickles, having the appearance of the back of a hedge hog.

## 2. SATIVUS. CULTIVATED.

Leaves straight between the angles, fruits oblong, scabrous.

This is the common cucumber, which thrives extremely well in Jamaica. Two other species have also been introduced, the *dudaim*, or apple-shaped cucumber, from the Levant; and the *flexuosus*, or Turkey cucumber. Although cucumbers are neither sweet nor acid, they are considerably acescent, and so produce flatulency, cholera, diarrhoea, &c. Their coldness and flatulency may be likewise in part attributed to the firmness of their texture. They have been discharged with little change from the stomach, after being detained there for forty-eight hours. By this means, therefore, their acidity is greatly increased; hence oil and pepper, the condiments commonly employed, are very useful to check their fermentation. Another condiment is sometimes used, its skin, which is bitter, and may therefore supply the place of aromatics; but should only be used when young.

See MUSK MELON—WILD CUCUMBER.

## CUDWEED:

## GNAPHALIUM.

CL. 19, OR. 2.—*Syngenesia polygamia superflua.* NAT. OR.—*Compositæ.*

This name is derived from a Greek word, signifying cotton or nap.

GEN. CHAR.—Calyx common, rounded, imbricate, with the marginal scales rounded, scarious, coloured; corolla compound; corollets hermaphrodite, tubular, with apetalous.



apetalous females sometimes intermixed; hermaphrodites funnel-form, with a five-cleft reflex border: stamens (in the hermaphrodites) are five capillary, very short filaments, with cylindric tubulous anthers: the pistil has an ovate germ, a filiform style, the length of the stamens; the stigma bifid—in the females reflex; there is no pericarp; the calyx perianth, shining; seeds solitary, oblong, small, crowned with a capillary or feathered down; receptacle naked. Two species are natives of Jamaica.

## 1. AMERICANUM. AMERICAN.

*Erectum, spicatum, simplex, villosum et incanum; foliis longis, angustis, sessilibus, et semi-amplexantibus.* Browne, p. 318.

Root leaves lingulate-lanceolate, snow-white beneath; stalk simple, upright, tomentose; flowers spiked and lateral, sessile, crowded.

Browne calls this the *narrow-leaved undivided cudweed*. It is a native of the coldest mountains of Liguanea, and grows generally in most open places, but seldom rises above six or nine inches in height. The flowers are yellowish, and disposed pretty thick about the top of the stalk, which puts on the appearance of a shorter spike.—*Browne*.

Barham calls these plants *stæchas*, and says, "We have a wild sort or two: One sort is called by some *cassidony*, or French lavender; another is a sort of cudweed.—These plants are very astringent, and therefore proper for fluxes of the body, and all defluxions of rheums. A syrup made of the tops of it, when in flower, is good for coughs and catarrhs."—*Barham*, p. 184.

## 2. ALBESCENS. WHITE.

Snowy tomentose; leaves linear-lanceolate; stalk upright, undivided at bottom; branches terminating, fastigate; flowers crowded, conical.—*Sw*.

## CURRENT TREE.

## EHRETIA.

CL. 5, OR. 1.—*Pentandria monogynia*.

NAT. OR.—*Asperifolia*.

GEN. CHAR.—See Bastard Cherry, p. 60.

## BOURRERIA.

*Jasminum, perychlymeni folio, flore albo, fructu flavo, rotundo, tetrapyrreno.* Sloane, v. 2, p. 96, t. 204, f. 1.—*Arborea foliis ovatis alternis, racemis rarioribus terminalibus.* Browne, p. 168, t. 15, f. 2.

Leaves ovate, quite entire, smooth; flowers in a kind of corymb; calyxes smooth.

This tree rises from eight to fourteen feet high, having several trunks, covered with a clay-coloured or grey bark, like that of dogwood; the branches very many, irregular. The leaves are two inches long, rough on the upper side, alternate, petioled, entire, various. Racemes corymbed terminating. Flowers white, sweet, with five roundish segments. Berries as big as peas, shining, saffron or orange-coloured, pulpy, sweet.

sweet, succulent, more quadrangular as they are larger, containing in a thin pulp four triangular stones. The berries are eatable. It grows very common in Jamaica in the savannas, and in Liguanea mountains. Browne called it *bourreria*, after Mr. Bourer, an apothecary of Nuremberg, and a great promoter of natural history. This species is considered as the connecting link between *ehretia* and *cordia*.

See JACQUINIA.

CURRENT CACTUS—See INDIAN FIG.

### EUSTARD APPLE.

### ANNONA.

CL. 13, OR. 7.—*Polyandria polygynia*. NAT. OR.—*Coadunata*.

GEN. CHAR.—See Alligator Apple, p. 11.

RETICULATA. RETICULATE.

*Annona maxima*, foliis oblongis angustis, fructu maximo luteo conoide, cortice glabro in areolas distincto. Sloane, v. 2, p. 167, t. 226.—  
Foliis oblongis undulatis venosis, fructibus areolatis. Browne, p. 256.

Leaves oblong-lanceolate, acute, smooth; fruits ovate, reticulate-areolate; outer petals lanceolate, inner minute.

This tree grows to the height of twenty-five feet or more, with spreading branches, the bark smooth and grey. The leaves of a light green colour, having several deep transverse ribs, and hollow, ending in acute points; they are alternate, in two rows; the petioles are gibbous, short, excavated, smooth; flowers three or four, close together, peduncled, nodding, whitish. Petals three, linear, thick, three-cornered, blunt, unequal and brown on the outside, yellowish white within, spotted with dark purple, excavated at the base. The nectary consists of three very minute, oblong, blunt, petals, at the base of the genuine petals; the body of stamens and pistils is roundish, minute, whitish; the fruit roundish, heart-shaped, the rind sometimes reticulate, thick, brown, shining, of a yellow or orange-colour, with a reddishness on one side, when ripe; having a soft, sweet, yellowish, pulp, the consistence of a custard, whence the name: the seeds are black, oblong, depressed, and shining. This tree grows in dry places, and the fruit is much esteemed by some people; it ripens by being allowed to remain some time after gathering. The seeds are said to stop fluxes.

No English Name.

### CYNANCHIUM.

CL. 5, OR. 2.—*Pentandria digynia*. NAT. OR.—*Contorta*.

GEN. CHAR.—Calyx, a one-leaved, five-toothed perianth; corolla one-petaled, with scarce any tube, border five-parted; nectary in the centre of the flower, erect, cylindric, with a five-cleft mouth, the length of the corolla; the stamens are five filaments, length of nectary, parallel; anthers touching, within the mouth of the corolla;

corolla; the pistil has an oblong germ, two-cleft; style scarce any; stigmas two, obtuse; the pericarp, two oblong, acuminate, one-celled follicles, gaping lengthwise; seeds numerous, oblong, crowned with a down, placed in an imbricate manner. One species was found in this island by Swartz.

CRISPIFLORUM. CURL-FLOWERED.

Stem twining; leaves underneath villose, oblong, cordate, with the sinus closed; petals curled at the ends.

This genus is by some classed *decandria*, and none has given more trouble to botanists than it and *asclepias* (see *Bastard Ipecacuanha*, p. 65), on account of the structure of the genitals. They all have two germs, running out into conical styles, covered with a fungous pentagon body, all of which, except the upper surface of the latter, are so covered, first with a sheath, and then with little bags hanging down and pressed close, that there does not seem to be the minutest opening to these parts.

No English Name.

CYNOMORIUM.

CL. 21, OR. 1.—*Monoechia monandria*.

NAT. OR.—*Amentaceæ*.

GEN. CHAR.—Male flowers disposed in an imbricated ament with the female: calyx an erect club-shaped ament, on every side covered with floscules; perianth proper, four-leaved; leaflets three clavate, and the fourth inferior, one larger, very obtuse, channelled; there is no corolla; the stamens single filaments, firm, straight, longer than the calycine scale; anther twin; female calyx a common ament with the males; perianth proper, superior; leaflets four, club-shaped, tuberculated, equal, permanent; no corolla; the pistil has an ovate, inferior, germ; style single, erect, firm, spreading, length of the calycine scale; stigma obtuse; there is no pericarp; the seed is single, roundish.

JAMAICENSE. JAMAICA.

*Erectum, breve, cylindraceum, nudum; prima ætate squamatum.*—  
Browne, p. 334.

Stipe scaly; ament elongated; scales imbricate, halved, rhomboidal.

This little plant is seldom met with but in the most shady inland woods; it grows in beds and rises generally to the height of three, four, or five inches, but is commonly smallest towards the bottom. At first it is covered pretty thick with scales of the figure of a heart; which fall off gradually as it rises, and expose the body of the plant thickly beset with little transparent denticles, intermixed with a few tubular trifid flowers, that jet above the level of the surface; the stem of the plant is succulent and fleshy, and all the parts astringent.—*Browne*.

CYRILLA—See *GESNERIA* and *ITEA*.

## DAGGER-PLANT, OR ADAM'S NEEDLE.

YUCCA:

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Coronarie*.

This generic name is adopted from the Indian appellation.

GEN. CHAR.—There is no calyx; the corolla is bell-shaped, six-parted, cohering by the claws; segments ovate, very large, spreading; the stamens are six very short filaments, thicker above, reflexed; anthers very small; the pistil has an oblong germ, bluntly three-sided, longer than the stamens; no style; stigma three-grooved, obtuse, with bifid segments, pervious; the pericarp is an oblong berry, obscurely six-cornered, fleshy, punched with a little hole between the stigmas, six-celled; partitions three thicker and three thinner, and membranaceous diaphragms forming cells for each seed; seeds flattish, incumbent, fastened to the inner angle of each cell. There are four species, natives of America, all of which have been introduced, and thrive remarkably well in Jamaica.

## 1. GLORIOSA. . . . . SUPERB.

Leaves quite entire.

This seldom rises with a stem above two feet and half or three feet high, which has leaves almost to the ground, which are broad, stiff, and have the appearance of those of the aloe, but are narrower, of a dark green colour, ending in a sharp black spine.—It frequently produces its panicles of flowers from the centre of the leaves; the flower stalk is three feet high, branching out on every side to a considerable distance, but the flowers are placed very sparingly on the stalk, which renders it less beautiful than the other sorts. The flowers are white within, but each petal is marked with a purple stripe on the outside; they are bell-shaped, and hang downward.

## 2. ALOIFOLIA. . . . . ALOE-LEAVED.

Leaves crenulate, strict.

This rises with a thick tough fleshy stalk, to the height of ten or twelve feet, having a head or tuft of the leaves at the top; these are narrower and stiffer than those of the former sort, and are of a lighter green colour; their edges are slightly serrate, and their points end in sharp thorns. The flower stalk rises in the centre of the leaves, and is from two to three feet long, branching out into a pyramidal form; the flowers grow close on the branches, and form a regular spike; they are of a bright purple colour on the outside, and white within, making a fine appearance. Whenever they appear the head decays, but one or two young heads come out from the side of the stalk below the old one.

## 3. DRACONIS. . . . . DRAGON'S.

Leaves crenate, nodding.

This has a stem three or four feet high; leaves narrow, dark green, hanging down, serrate, and ending in acute spines. The flowers pendulous, milk-white, with a strong unpleasant smell, about one hundred and fifty on a thyrses; seed vessel three-celled; seeds horny; wrinkled, blackish when ripe.

## 4. FILAMENTOSA. . . . . THREADY.

Leaves serrate, thready.

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The stalk and leaves are like those of the first sort, but the leaves are obtuse, and have no spines at their ends; the flower stalk rises five or six feet high, and is generally covered with flowers most of its length; the flowers are larger and whiter than those of the other species, and sit close to the stalk; from the side come out long threads which hang down. All these plants are very ornamental, and easily propagated from seeds, or from off-sets and heads taken from the old plants after the manner of aloes.

## DAMSON-PLUM.

## CHRYSOPHYLLUM.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Dumosa*.

This generic name is derived from two Greek words, signifying golden leaf.

GEN. CHAR.—Calyx a five parted small perianth; leaflets roundish, obtuse, permanent; corolla monopetalous, bell-shaped; border five-cleft, segments roundish, much expanded, shorter than the tube; the stamens are five filaments, subulate, placed on the tube, converging; anthers roundish, twin, incumbent; the pistil has a roundish germ; a very short style; an obtuse sub-quinquefid stigma; the pericarp is a globular berry, ten-celled, large; seeds solitary, bony, compressed, marked with a scar, shining. Three species are natives of Jamaica, the star-apple, or *cainito*, and the following:

## 1. MONOPYRENUM.

*Fructu minori glabro, foliis subtus ferruginis*.—Browne, p. 171.

Leaves elliptic-acuminate, golden-tomentose beneath; fruit ovate, one-seeded.

This tree never attains the size of the star-apple, either in height or the size of the trunks by half; but the branches are slender and garnished with leaves like it. It grows wild in many parts of Jamaica. The flowers come out in clusters from the side of the branches, which are succeeded by oval smooth fruit, about the size of a bergamot pear. This contains a white clammy juice, when fresh; but, after being kept a few days, it becomes sweet, soft, and delicious. It frequently contains four or five black seeds about the size of those of a pumpkin.

## 2. RUGOSUM. WRINKLED.

Leaves oblong-acuminate, smooth on both sides; fruit acuminate, wrinkled.  
—Sw.

See STAR-APPLE.

## DANDELION, OR LION'S TAIL.

## TUSSILAGO.

CL. 19, OR. 2.—*Syngenesia polygamia superflua*. NAT. OR.—*Compositae*.

This name is derived from *tussis*, on account of some of the species being of use in curing coughs.

GEN. CHAR.—Calyx common cylindrical; scales lanceolate-linear (fifteen or twenty),  
L 1 2 equal,

equal, as long as the disk, sub-membranaceous; corolla compound, various; stamens in the hermaphrodites, five capillary very short filaments; anthers cylindric, tubular; pistil in the hermaphrodites has a short germ, a filiform style, longer than the stamen, and a thickish stigma; there is no pericarp; calyx scarcely changed; seeds in the hermaphrodites solitary, oblong, compressed; down capillary, stipulate; receptacle naked. Three species are natives of Jamaica.

## 1. NUTANS. NODDING.

*Dens leonis, folio subtus incano, flore purpureo.* Sloane, v. 1, p. 255, t. 150, f. 2. *Foliis radicalibus oblongis, obovatis, subtus lanuginosis incanis; scapo simplici nudo monofloro.* Browne, p. 310.

Scape one-flowered, without any bracte; flower nodding; leaves lyrate, obtuse.

This is an annual stemless plant, about a foot high. It has reddish roots. The leaves are radical, three inches long, petioled, wedge-shaped, sometimes ovate, having near the top several deep incisures, gradually attenuated at the base, white tomentose beneath, dark green above. In the middle of the leaves rise one or more naked stalks, pale green, downy, having a solitary nodding flower; scales of the calyx tomentose at the base; corolla radiate; corollets of the disk five-cleft, white; of the ray, ligulate, longer than the calyx, linear, bifid, purple; seeds angular, flying off when ripe.—This plant is generally found in moist shady places, but thrives best in a cool gravelly soil. Browne says it is reckoned an excellent diuretic, and frequently used. Sloane says the decoction of it is given to women in child-bed; and that it dissipates wind, provokes the catamenia, is good against convulsions, takes away gripes, and is a remedy against all sorts of cold, being hot and bitter.

## 2. ALBICANS. WHITE.

Scape one-flowered, without any bracte; flower nearly erect; leaves lanceolate-ovate, tomentose beneath, indistinctly serrate backwards.

Root annual, simple; leaves radical, a finger's length, webbed above, white tomentose beneath; scape longer than the leaves, more tomentose at top; calyx oblong, imbricate; scales somewhat pappose, linear, acute; seeds striated; down rufescent.

## 3. PUMILA. DWARF.

Scape one-flowered, without any bracte, erect; leaves lyrate, gashed, tooth-letted, tomentose.

## DATE-PLUM.

## DIOSPYROS.

CL. 23, OR. 2.—*Polygamia dioecia.* NAT. OR.—*Bicornes.*

This name is derived from two Greek words signifying divine wheat.

GEN. CHAR.—Hermaphrodite calyx a one-leafed four-cleft perianth; corolla one-leafed, pitcher shaped, four-cleft; stamens eight (only six), bristle-form; anthers oblong, unproductive; the pistil has a round turbinate, and hairy, germ; style single, half four-cleft; stigmas obtuse, two-cleft; the pericarp is a globose berry.

berry, eight (four) celled, sitting on a very large spreading calyx; seed solitary, roundish, compressed, very hard. Male, in a distinct plant, calyx a one-leafed, four-cleft perianth; corolla one-petaled, pitcher-shaped, leathery, four-cornered, four-cleft; divisions roundish, rolled back, in the manner of asclepias; the stamens eight (six) short filaments, inserted into the receptacle; anthers double, interior shorter; the pistil is the rudiment of a germ. One species of this genus is a native of Jamaica.

TETRASPERMA. FOUR-SEEDED.

Leaves membranaceous, shining, wedge-form; berries four-seeded.—*Syz.*

### DATE-TREE.

### PHŒNIX.

CL. 22, OR. 3.—*Dioecia triandria.* NAT. OR.—*Palmæ.*

GEN. CHAR.—The calyx of the male flower is an universal one-valved spathe; spadix branched; perianth three-parted, very small, permanent; the corolla has three petals, concave, ovate, somewhat oblong; the stamens are three filaments, very short; anthers linear, four-cornered, the length of the corolla. Female flowers on a different plant; calyx as in the male; no stamens; the pistil has a roundish germ, an awl-shaped short style, and acute stigma; the pericarp is an ovate drupe, one-celled; the seed single, bony, sub-ovate, with a longitudinal groove.

DACTYLIFERA. FINGERED.

*Palma dactylifera major vulgaris.* Sloane, v. 2, p. 111. *Subcine-  
rea, foliis brevioribus pinnatis quasimodo confertis, infimis brevissi-  
mis et in spinas quasi redactis.* Browne, p. 344.

Fronds pinnate; leaves folded together, ensiform.

The *dactylifera*, or common date-tree, is a native of Africa and the Eastern countries, where it grows to fifty, sixty, and one hundred feet high. The trunk is round, upright, and studded with protuberances, which are the vestiges of the decayed leaves. From the top issue forth a cluster of leaves or branches eight or nine feet long, extending all round, like an umbrella, and bending a little towards the earth. The bottom part produces a number of stalks like those of the middle, but seldom shooting so high as four or five feet. These stalks, says Adanson, diffuse the tree very considerably; so that, wherever it naturally grows in forests, it is extremely difficult to open a passage through its prickly leaves. The centre of the trunk is not solid, but filled with pith. The date tree was introduced into Jamaica soon after the conquest of the island by the Spaniards. There are, however, but few of them in Jamaica at this time, and it is a pity it is not more cultivated. The fruit is somewhat in the shape of an acorn. It is composed of a thin light, and glossy, membrane, somewhat pellucid and yellowish; which contains a fine, soft, and pulpy fruit, which is firm, sweet, and somewhat viscid to the taste, esculent, and wholesome; and within this is inclosed a solid, tough, and hard, kernel, of a pale grey colour on the outside, and finely marbled within, like  
the

the nutmeg. For medical use dates are to be chosen large, full; fresh, yellow on the surface, soft and tender, not too much wrinkled; such as have a vinous taste, and do not rattle when shaken.

The trees which spring from seed never produce such good dates as those that are raised from shoots; they being always poor and ill tasted. It is undoubtedly by force of cultivation, and after several generations, that they acquire a good quality.

The date-trees, which have been originally sown, grow rapidly, and sometimes bear fruit in the fourth or fifth year. Care is taken to cut the inferior branches of the date-tree in proportion as they rise; and a piece of the root is always left of some inches in length, which affords the easy means of climbing to the summit. These trees live a long time, according to the account of the Arabs; and, in order to prove it, they say, that when they have attained to their full growth, no change is observed in them for the space of three generations.

The number of females cultivated in Asia is much superior to that of the males, because they are much more profitable. The sexual organs of the date-tree grow, as is well known, upon different stalks, and these trees flower in the months of April and May, at which time the Arabs cut the male branches to impregnate the female. For this purpose, they make an incision in the trunk of each branch which they wish to produce fruit, and place in it a stalk of male flowers; without this precaution the date tree would produce only abortive fruit. In some cantons the male branches are only shaken over the female. The practice of impregnating the date tree in this manner is very ancient. Pliny describes it very accurately, in that part of his work where he treats of the palm tree.

Pere Labat, in his account of America, mentions a tree which grew near a convent in Martinique, which produced a great quantity of fruit, and came to maturity enough for eating; but, as there was no other tree of the kind in the island, it was desirous to propagate it, but none of the seeds would grow. He conjectures that this tree might probably be so far impregnated by some neighbouring palm-trees, as to render it capable of bearing fruit, but not sufficient to make the seeds prolific. The flowers of both sexes come out in very long bunches from the trunk between the leaves, and are covered with a spatha which opens and withers; those of the male have six short stamens, with narrow four-cornered anthers filled with farina. The female flowers have no stamens.

The celebrated Linnæus, in his *Dissertation on the Sexes of Plants*, speaking of the date-tree, says, "A female date-bearing palm flowered many years at Berlin without producing any seeds; but the Berlin people taking care to have some of the blossoms of the male tree, which was then flowering at Leipsic, sent to them by the post, they obtained fruit by these means; and some dates, the offspring of this impregnation, being planted in my garden, sprung up, and to this day continue to grow vigorously. Kœmpfer formerly told us, how necessary it was found, by the oriental people, who live upon the produce of palm-trees, and are the true *lotophagi*, to plant some male trees among the female, if they hoped for any fruit: Hence it is the practice of those who make war in that part of the world to cut down all the male palms, that a famine may afflict their proprietors; sometimes even the inhabitants themselves destroy the male trees when they dread an invasion, that their enemies may find no sustenance in the country."

There is scarcely any part of the date-tree which is not useful. The wood, though of a spongy texture, lasts such a number of years, that the inhabitants of the country say it is incorruptible. They employ it for making beams and instruments of husbandry;



bandry; it burns slowly, but the coals which result from its combustion are very strong, and produce a great heat.

The Arabs strip the bark and fibrous parts from the young date-trees, and eat the substance, which is in the centre; it is very nourishing and has a sweet taste, and is known by the name of the marrow of the date-tree. They eat also the leaves, when they are young and tender, with lemon juice; the old ones are laid out to dry, and are employed for making mats and other works of the same kind, which are much used, and with which they carry on a considerable trade in the interior parts of the country. From the sides of the stumps of the branches which have been left arise a great number of delicate filaments, of which they make ropes, and which might serve to fabricate cloth.

Of the fresh dates and sugar, says Hasselquist, the Egyptians make a conserve, which has a very pleasant taste. In Egypt they use the leaves as fly-flaps, for driving away the numerous insects which prove so troublesome in hot countries. The hard boughs are used for fences and other purposes of husbandry; the principal stem for building. The fruit, before it is ripe, is somewhat astringent; but, when thoroughly mature, is of the nature of the fig. The Senegal dates are shorter than those of Egypt, but much thicker in the pulp, which is said to have a sugary agreeable taste, superior to that of the best dates of the Levant.

A white-liquor, known by the name of milk, is drawn also from the date-tree. To obtain it, all the branches are cut from the summit of one of these trees, and, after several incisions have been made in it, they are covered with leaves, in order that the heat of the sun may not dry it. The sap drops down into a vessel placed to receive it, at the bottom of a circular groove, made below the incisions. The milk of the date-tree has a sweet and agreeable taste when it is new; it is very refreshing, and it is even given to sick people to drink, but it generally turns sour at the end of twenty-four hours. Old trees are chosen for this operation, because the cutting of the branches, and the large quantity of sap which flows from them, greatly exhaust them, and often cause them to decay.

The male flowers of the date-tree are also useful. They are eaten when still tender, mixed up with a little lemon juice. They are reckoned to be very provocative: the odour which they exhale is probably the cause of this property ascribed to them.

These date-trees are very lucrative to the inhabitants of the desert. Some of them produce twenty bunches of dates; but care is always taken to lop off a part of them, that those which remain may become larger; ten or twelve bunches only are left on the most vigorous trees. When the bunches are taken from the trees they are hung up in some very dry place, where they may be sheltered and secure from insects.

Dates afford wholesome nourishment, and have a very agreeable taste when they are fresh. The Arabs eat them without seasoning. They dry and harden them in the sun, to reduce them to a kind of meal, which they lay up in store to supply themselves with food during the long journies which they often undertake across their deserts.— This simple food is sufficient to nourish them for a long time. The inhabitants of Zaara procure also from their dates a kind of honey which is exceedingly sweet, for which purpose they choose those which have the softest pulp; and having put them into a large jar with a hole in the bottom, they squeeze them by placing over them a weight of eight or ten pounds. The most fluid part of the substance, which drops through the hole, is what they call the *honey* of the date.

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Even the stones, though very hard, are not thrown away. They give them to their camels or sheep as food, after they have bruised them or laid them to soften in water.

The date, as well as other trees, exhibits great variety in its fruit, with respect to shape, size, quality, and even colour. There are reckoned to be at least twenty different kinds. Dates are very liable to be pierced by worms; and they soon corrupt in moist or rainy weather.

From what has been said it may easily be perceived that there are but few trees that are used for so many and so valuable purposes as the date tree; which must occasion a deep regret that the cultivation of it has not been more attended to in this island. We have had the bread-fruit from the South Seas and the date from Arabia, but what general or real use can be expected from them if so little care is taken to propagate them as has hitherto been the case.

Dates are principally used in medicine; their qualities are to soften the asperities of the gullet, to strengthen the foetus in the womb, to assuage all immoderate fluxes of the belly, and to ease disorders of the reins and bladder. Their bad property is that they are difficult of digestion, cause pains in the head, and produce thick melancholic blood. These effects arise from the principles they contain, which are, a moderate share of oil, and a deal of phlegm and essential salt. The oil and phlegm render them moistening and nutritious, good against acrimonies of the breast, to assuage coughs, &c. and the phlegm and salt render them detersive and astringent, and good against diseases of the throat.—*Chamber's Cyclopaedia*.

*The Date Tree*.—The unripe fruits are very harsh and binding, and the ripe also, while they are fresh, but not so when they are dry. They stop vomiting and fluxes, and check the menstrual discharge; they are also proper for relaxation of the fundament and piles, being taken in red wine.—*Barham*, p. 129.

DAVID'S ROOT—See SNOWBERRY.

No English Name.

DICHONDRA.

CL. 5, OR. 2.—*Pentandria digynia*. NAT. OR.—*Asperifolia*.

This name is derived from two Greek words signifying double grained, because each flower has two seeds.

GEN. CHAR.—Calyx five-leaved, leaflets ob-ovate, netted-nerved, hairy without; corolla monopetalous, inferior, rotate, sub-campanulate, five-cleft, the length of the calyx; the stamens are five filaments, with roundish anthers; the pistils have two hairy germs, divaricate styles, and capitate stigmas; the pericarp, two globular capsules, subhirsute, one-celled; seeds one in each cell, globular.

REPENS. CREEPING.

Leaves silky below.

This has a prostrate stem, creeping, branched, round; leaves alternate, petioled, erect, kidney-shaped, sometimes emarginate, above almost naked, below silky, radiate-veined; petioles round and silky; flowers small, rather nodding, on axillary, filiform,

form, simple, silky, peduncles, scarcely the length of the petioles, and usually solitary. This is the *sibthorpia evolvulacea* of Linneus, but it differs from that genus both in class and order.

DILDOES—See TORCH-THISTLE.  
DILL—See FENNEL.

No English Name.

DIODIA.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Stellate*.

This name is derived from two Greek words signifying by the way, as it grows by way-sides.

GEN. CHAR.—Calyx a two-leaved perianth; corolla one-petaled, funnel-form, border four-parted; the stamens are four filaments, bristle-shaped, with versatile anthers; the pistil has a roundish four-sided inferior germ, a filiform style, and two-cleft stigma; the pericarp is an ovate four-cornered capsule, crowned, two-celled, two-valved; seed solitary, ovate-oblong, even, convex on one side, flat on the other, shining. Three species are natives of Jamaica.

1. SIMPLEX. SIMPLE.

Stem herbaceous, simple, almost erect, smooth and even; leaves ovate-lanceolate.—Sw.

2. PROSTRATA. PROSTRATE.

Stem suffruticose, sub-divided; branches prostrate, filiform; leaves linear, somewhat hirsute, revolute.—Sw.

3. SARMENTOSA. SARMENTOSE.

Stem flaccid, shrubby; branches opposite, spreading; leaves oblong, acute, somewhat rugged.—Sw.

DODDER.

CUSCUTA.

CL. 4, OR. 2.—*Tetrandria digynia*. NAT. OR.—*Convolvuli*?

GEN. CHAR.—Calyx a one-leaved perianth, cup-form, four-cleft, obtuse, fleshy at the base; corolla one-petaled, ovate, a little longer than the calyx, mouth four-cleft, obtuse; the nectary has four scales, which are linear, two-cleft, sharp, and growing to the corolla at the base of the stamens, which are four subulate filaments, the length of the calyx, with roundish anthers; the pistil has a roundish germ; two styles, erect, short; with simple stigmas; the pericarp is fleshy, roundish, two-celled, cut round, or opening horizontally; seeds in pairs.

AMERICANA. AMERICAN.

*Cuscuta inter majorem et minorem media, filamentis longis et fortibus*  
M.m. latissima.

*latissime super arbores vel campos se extendens.* Sloane, v. 1, p. 201, t. 128, f. 4. *Ramosa repens, floribus conglomeratis.* Browne, p. 149.

Flowers peduncled.

This is a parasitical plant, very branching, leaflets twining, tender, shining, and yellowish; common peduncles very short; flowers small, without scent, aggregate, whitish; calyx withering, five-cleft; seeds two, three, or only one, arriving at maturity. Nectary five-tinged, converging scales fastened to the petal below the stamens; filaments always five.—*Jacquin* According to Swartz, the seeds are roundish, and four in each capsule. Browne says this plant is frequently found creeping on the grass and lower bushes in Jamaica, and that it has always been esteemed as a diuretic and aperitive, and formerly used as an ingredient in some of the compositions of the shops.

Dodder is a strange sort of a plant, running over and destroying every plant it comes near, therefore is called by some hell-weed, or devil's guts. It hath strong yellow filaments, by which it stretches over very large and high trees, covering the plant which it feeds on, and destroying it. The flowers are white and conglomerated; it hath a pale coloured seed, somewhat flat, and twice as big as poppy-seed. This devouring weed generally takes after the quality and properties of the plant on which it grows; but in general it hath a cathartic quality, and opens obstructions, &c.—*Barham*, p. 52.

The following species of this curious plant is noticed in Mr. A. Robinson's manuscript:—

*“Floribus pedunculatis pentandris nectariis fimbriatis antheris didymis.*

“The nectarous squamæ adhere not to the stamina but to the corolla, a little beneath, they are of a triangular form, and have their edges beautifully fimbriated; there are two anthers on the top of each stamen. The top of the germ is divided into four equal parts, by two furrows which intersect each other. The negroes of Liguanea mountains call it *love-bush*. I saw it winding about a young tree where a negro woman had thrown it, on purpose to propagate it. It is plain Dr. Browne has not distinguished this from the common *cuscuta*. The petals are lanceolated; the stamens ever two in number, and more than twice the length of the petals. On the centre of the perianth is a hollow nectarous gland, on whose margin the stamens are placed.”

DOG'S-TAIL GRASS.

CYNOSURUS.

CL. 3, OR. 2.—*Triandria digynia.* NAT. OR.—*Graminæ.*

This name is derived from two Greek words signifying dog's-tail, which the grass resembles.

GEN. CHAR.—Calyx a common unilateral receptacle; glume many-flowered, two-valved; valves linear-acuminate, equal; corolla two-valved; nectary two-leaved; stamens three capillary filaments, with oblong anthers; the pistil has a turbinate-germ, two villose reflex styles, and simple stigmas; there is no pericarp; corolla closely plaiting over the seed, and not gaping; seed single, oblong, acuminate to each end. Two species are natives of Jamaica.

1. *XIRGATUS.*

## 1. VIRGATUS. TWIGGY.

*Gramen dactylon panicula longa, & spicis plurimis gracilioribus purpureis vel viridibus mollibus constante.* Sloane, v. 1, p. 113, t. 70, f. 2. *Loliaceum, panicula & spicis simplicibus teretibus confutis, spicillis minimis compressis distichis alternis.* Browne, p. 137.

Panicle with simple branches; flowers sessile, six together, the last barren, the lowest sometimes awned.

This plant is called by Browne, the *rising grass with very slender flower-spikes*, which rises commonly about two feet and a half, furnished with a spreading panicle at top, which is generally composed of a good many delicate, slender, simple, spikes.

## 2. INDICUS. INDIAN.

*Gramen dactylon procumbens, crassum et viridius, culmo reclinato.* Sloane, v. 1, p. 111. *Majus, culmo compresso nodoso distiche foliato atque ramoso.* Browne, p. 137.

Spikes digitate, linear; culm compressed, declined, knotty at the base; leaves alternate.

This grass is called *Dutch grass*, it has a fibrous root, from which spring very green leaves and stalks, lying on every side on the surface of the ground. The stalk grows about a foot long, the spikes at top are usually three or four. It grows by highway sides and low grounds, (and sometimes luxuriantly in the mountains,) and is esteemed the best fattening and feeding grass for cattle. Bruised in the mouth and put on a bleeding wound stops a hemorrhage. I saw a black once stop a bleeding artery with it.—Sloane.

See GRASS.

## DOG-STONES.

## ORCHIS.

CL. 20, OR. 1.—*Gynandria diandria.* NAT. OR.—*Orchideæ.*

This is so named from the form of the roots in many of the species.

GEN. CHAR.—Calyx wandering spathes; spadix simple; there is no perianth; the corolla has five petals, three outer, two inner, converging upwards into a helmet; nectary one-leaved, fastened to the receptacle by the lower side, between the division of the petals; upper lip erect, very short; lower lip large, spreading, wide; tube behind, horn-shaped, nodding; the stamens are two filaments, slender, short, on the pistil; anthers ob-ovate, erect, covered with a bilocular folding of the upper lip of the nectary; the pistil has an oblong, twisted, inferior germ; the style fastened to the upper lip of the nectary, very short; stigma compressed, blunt; the pericarp is an oblong capsule, one-celled, three-keeled, three-valved, opening three ways under the keels, cohering at the top and base; the seeds are numerous, very small, like saw-dust. Two species are indigenous to Jamaica.

## 1. MONORRHIZA. ONE-BULBED.

*Erectum simplex, foliis sessilibus ab altero latere recurrentibus, spica terminali, nectarius longissimis.* Browne, p. 324.

M m 2

This

This plant is uncommon and grows to the height of eighteen or twenty inches, with a simple upright stem, and oblong leaves. Browne found it in Liguanea, and calls it the *satyrium* with one-eared leaves and long spurs.

2. HABENARIA. REINED.

Bulb solitary, undivided; lip of the nectary three-parted, lateral ones bristle-shaped; horn filiform, much longer than the germ.

Bulb single, middle sized, oblong, tomentose, with long, filiform, simple, fibres above the bulb. Stem erect, leafy, from one to two feet high, simple, angular, smooth. Leaves sessile, alternate, sheathing at the base, ovate-lanceolate, acute, smooth and shining, three-nerved, netted-veined; sheaths closely surrounding the stem and smooth. Flowers in spikes, alternate, scattered, at a little distance, white; among the flowers the stem is acute-angled. Spathes (bractes) under the flowers wide, keeled, three-nerved, smooth, green. Corollas five-petaled; three petals exterior; the upper or middle one, which is the helmet, arched, erect, three-keeled, greenish white, smooth; two lateral somewhat turned back, ovate-lanceolate, keeled, green; two interior lateral, cloven at the base; the upper segments inclosed within the arched petal, of the same length; the lower segments filiform, much longer than the upper ones, spreading, white. Nectary behind, under the helmet, arched; triangular in the middle, divided into cells at the sides, and in front divided into two long horns, between which a funnel-form passage opens into the horn of the germ. Filaments capillary, from the lateral cells of the nectary communicating by canals with the tips of the horns, and there glued to them; anthers in the cells filled with yellow globular pollen; germ inferior, elongated, three-sided, gibbous, hexangular; no style; stigma stretched out between the horns, behind the opening, convex, shining, moistened. Lip of the nectary three-parted, inserted before the stigma and the horn of the germ; the middle segment lanceolate, acute, plano-convex; the lateral ones filiform, three times the length of the other, bent down; horn four or five times as long as the germ, roundish, compressed a little at the base, lanceolate at the end, and anticipital, glued to the stem after flowering. Capsule large, three-winged, six-grooved, opening in the middle into six parts, cohering at the top; seeds bristly. The flowers are very singular, and, together with *orchis monorrhiza*, might perhaps constitute a separate genus. It is a native of Jamaica, in low meadows at the foot of the mountain. —Sw.

DOGWOOD TREE.

PISCIDIA.

CL. 17, OR. 4. — *Diadelphia decandria*. NAT. OR. — *Papilionaceae*.

This generic name is derived from the Latin word for fishes, the twigs of the tree intoxicating them when bruised and thrown into the water.

GEN. CHAR. — Calyx a one-leafed, bell-shaped, perianth, five-toothed, the upper teeth nearer; corolla papilionaceous; banner ascending, emarginate; wings the length of the banner; keel crescent-shaped, ascending; the stamens are ten filaments, uniting in a sheath cloven above; anthers oblong, incumbent; the pistil has a pediceled, compressed, linear germ; style filiform, ascending; stigma acute; the pericarp is a pediceled legume, linear, with four longitudinal membranaceous

branaceous angles, one-celled, separated by double isthmuses; seeds some, sub-cylindric. There are two species, both natives of Jamaica.

## I. ERYTHRINA.

*Coral arbor polyphylla non spinosa fraxini folio, siliqua albis foliaceis extantibus, rotæ molendinariae fluvialis, vel seminum laserpitii instar aucta.* Sloane, v. 2, p. 39, t. 176, f. 4, 5. *Folius pinnatis ovatis, racemis terminalibus, siliquis quadriolatis.* Browne, p. 296.

## Leaves ovate.

This is a middle sized tree growing to the height of twenty-five feet or more, with a stem almost as large as a man's body, covered with light coloured smooth bark, having here and there large white spots; sending out several branches at the top without order. The trunk is unarmed; the leaves are pinnate, with seven leaflets for the most part, commonly opposite, quite entire, pubescent, deciduous; racemes thyrsoid terminating, many flowered, with decussated branches. Flowers peduncled, numerous, rather large, of a dirty white-colour; calyx goblet-shaped, five-cleft, unequal, of a dusky purple colour, hoary; the two upper segments scarcely divided, the three lower ovate, the middle one acute; banner of the corolla roundish, compressed, covering the wings and keel, keeled at the back; wings ovate, clawed, oblique, white, with blood red veins; keel curved in, gibbous, bifid, blood red at the tip; germ striated, pubescent; style curved in, awl-shaped; legume membranaceous, compressed; the wings not lateral but marginal, in pairs; seeds roundish. This tree grows chiefly in the lowlands, on dry calcareous hills, and flowers through several of the spring months, when there is no foliage upon the tree, which succeeds soon after. It is an excellent timber wood, and the bark, which has a strong rank smell, and twigs, are remarkable from their power of intoxicating fish, like the Surinam poison, described under that name; for which purpose it is pounded very small, and mixed with the water, by being put into sacks, in some deep and convenient part of a river, whence it spreads itself, colouring the water of a reddish hue, and in a few minutes the fish that lie hid under the rocks and banks rise and float on the surface, where they float as if dead, most of the large ones recover after a time, but the smaller fry are destroyed. Browne observes that the eel is the only fish he noticed that could not be intoxicated with the common dose, though it was sensibly affected; for the moment the particles spread where it lay, it moved off with great agility through the water; and he saw them sometimes chased to and fro, in this manner, for some minutes, without being any ways altered.

The wood of this tree is of a lightish brown colour, coarse, cross-grained, heavy, firm, and resinous, and considered one of the best timber trees in the island. As it lasts equally well in or out of water it makes excellent piles for wharves, and it is easily propagated by seeds, slips, or cuttings; the stakes soon form a good live fence.

It is thought, from the restraining nature of the bark, that it would probably answer for tanning leather.

This tree is so well known in Jamaica, that it needeth no description, being the chief and most lasting timber in America, every way as good as the English oak, and having much such a leaf; but they never grow so large. Its bark hath a very strong rank smell, and poisons fish. It makes a glorious show when in blossom, which it will be when there is not a green leaf upon it: The blossoms are very white and sweet, small, and in bunches as full as the tree can hold; afterwards come bunches of a membranous substance,

substance, looking like hops at a distance; in which is contained its seed. The bark is very restraining: I have made a decoction of this bark, which would cleanse and stop the great flux of ulcers, and make them fit to heal, and cure the mange in dogs. —Barham, p. 52.

2. CARTHAGINENSIS. CARTHAGENIAN.

*Foliis oblongo ovatis, pinatis; siliquis compressis oblongis.* Browne, p. 297.

Leaflets obovate.

Browne calls this the *mountain dog-wood*, and observes that it is so like the foregoing, both in appearance and smell, as well as in the grain and texture of its wood; that it is difficult to distinguish the one from the other, until the fruit is observed, which, in this, is quite compressed and plain, without wings. It grows to nearly double the size of the other, and its wood, which may be had to almost any dimensions, is rather darker, but equally good.

This tree blossoms in June and July, the blossoms grow in spikes, are of a pale purple, and it does not lose its leaves while in blossom as the *erythrina* does. The leaves are larger and thinner than those of the other, which they resemble, and consist of divers pairs of lobes growing on the middle rib and terminated by an odd one. The seeds are compressed and kidney-shaped. It is found plentifully in Clarendon and Vere, where it is known by the name of *bitch-wood*, and is more esteemed than any other wood for the purpose of making naves for wheels.

No English Name.

DORSTENIA.

CL. 4, OR. 1.—*Tetrandria monogynia.* NAT. OR.—*Scabridæ.*

This was so named in honour of Dorstenius, a German physician, who published a history of plants.

GEN. CHAR.—Calyx, common receptacle, one-leafed, flat-cornered, very large, covered by the receptacle, with very numerous floscules inhabiting the disk, very small; proper perianth four-cornered, concave, imbedded in the receptacle and united with it; there is no corolla; the stamens are four filaments, filiform, very short; with roundish anthers; the pistil has a roundish germ; a simple style; and obtuse stigma; there is no pericarp, the common receptacle becoming fleshy; seeds solitary, roundish-acuminate. One species is indigenous to Jamaica.

CORDIFOLIA. . HEART-LEAVED.

Scapes rooting; leaves cordate, ovate, tooth-letted; receptacles orbiculate.

Receptacle plano-convex, with a crenate dotted margin, and fleshy; disk a little concave; male flowers in the disk towards the ray; calyxes immersed in the receptacle, or four-toothed holes. Filaments two, three, or four, short, with twin anthers; flowers in the middle of the disk female, calyxes immersed, or four-toothed, four-cornered holes; germ ovate, style bifid, stigmas reflex. When the germ is ripe it is concealed within the receptacle, and opens into two parts, dropping the seed, which is roundish. This genus is clearly allied to *urtica* and *parietaria*.

DOWN



## DOWN-TREE.

## OCHROMA.

CL. 16, OR. 2.—*Monadelphica pentandria*. NAT. OR.—*Columnifera*.

This name is derived from a Greek word signifying paleness.

**GEN. CHAR.**—Calyx a double perianth; outer three-leaved; leaflets lanceolate, caducous; inner one-leaved, funnel-form, five-cleft; the corolla has five petals, wedge-form, coriaceous; the stamen one cylindrical filament; anthers five, large, linear, connate, creeping up and down; the pistil has a superior oblong germ; a filiform style, covered with the cylinder of stamens; stigmas two, awl-shaped, wide, contorted; the pericarp is a coriaceous capsule, sub-cylindric, five-grooved, commonly ten-cornered, five-celled, five-valved; valves woolly within, rolled back at the edge; partitions kidney-form; seeds very many, oblong. There is only one species.

## EAGOPUS.

*Hibiscus. Arboreus trichotomus, foliis amplissimis, cordato angulatis; seminibus lana obvolutis.* Browne, p. 286.

This tree is also called *bombast mahoe*, and rises sometimes to the height of sixty or seventy feet, and is above six in circumference; it begins to divide about twelve or fourteen feet from the ground, the branches are diffuse and trichotomous, the leaves descend from their extremities, supported by long reddish-brown waving pedicels; their margins are plain, they are cordate sometimes, but oftener cordato-angulated, a foot and a half in length, and a proportionable breadth, their colour a dull green, and hairy below, darker above. The flower pedicels arise on the upper branchlets from the bosom of the leaves singly, they are erect, thick, fleshy, cylindrical, five inches long, and of an obscure or dull purple colour; the flower-cup is near four inches long, widening from a narrow base, of an inch and half to near six inches in circumference; the margins are divided by dents better than an inch deep, into as many broad segments, alternately marginated, winged, or welted down the middle of their exterior parts; the petals are two inches longer than the cup, and ribbed on their outsides; and the stigmata two inches longer than them. The pod is long, blackish, compressed, and channelled longitudinally. The silken down, which envelopes the seeds, appears on first being displayed as if it had newly passed the hackle, the threads being elegantly disposed all one way; but the part of the down next the valves seems to have been stuffed, and lies in a disorderly manner. The down tree is very remarkable for the quickness of its growth, arriving to the height of thirty or forty feet in twelve or thirteen years, which may be a reason that the wood is very lax and spungy, being fit for nothing but to make corks, and is used as such by fishermen, and therefore called by some the cork-tree: others stop bottles with it, and some make ropes of the bark, which is thick, fibrous, ash-coloured, varied with white spots, and netted with rufescent wrinkles, to which it seems well adapted. The cotton is used for stuffing beds, mattresses, &c. and is certainly capable of being manufactured, as it may be made into garments. It begins to blossom in November and December, and continues flourishing three or four months. It delights to grow near rivers, and in rocky or sandy barren soils in many parts of Clarendon mountains; and is frequent on the banks of the Rio Obbre, in the road to Sixteen-Mile-Walk; and easily propagated from seeds.

DUCK.

## DUCK OR POND WEED.

## PISTIA.

CL. 16, OR. 3.—*Monadelphia octandria*. NAT. OR.—*Miscellanea*.

GEN. CHAR.—There is no calyx; corolla one-petaled, tongue-shaped, entire; anthers six or eight, placed on the filament; style one; capsule one-celled, at the bottom of the corolla. There is only one species.

## STRATIOTES. SWIMMING:

*Lenticula palustris sexta vel Ægyptiaca, sive stratiotes aquatica foliis sedo majore latioribus.* Sloane, v. 1, p. 15, t. 2, f. 2. *Aquatica villosa, foliis obovatis ab imo venosis, floribus sparsis foliis incidentibus.* Browne, p. 329.

This is a stemless, floating, elegant plant. Roots many, a foot and a half long, putting forth simple fibres from their circumference. Other fibres come out at the base of the leaves, which are sub-sessile, wedge-shaped at the base, elliptic, radiate-veined, glaucous-velvety on the upper surface; the central leaves smaller than the outer ones; the inmost erect, convoluted, tomentose. The runners are produced from the root under the leaves, they are long and terminated by other smaller plants. Flowers whitish, inodorous, axillary, solitary, and erect, on a short peduncle. The corolla shrivels up more or less, and bursts as the germ increases.

This plant is rare in Jamaica, I have not observed it above once in that island: it was in a pond between Mrs. James's and Dr. Thene's, in St. James's: but it is very common in Antigua, where the greatest part of their waters is collected and preserved in ponds, for the public use. It grows and thrives very luxuriantly in these reservoirs, and keeps the waters always fresh and cool; which would be greatly subject to putrefaction, and charged with a multitude of insects, had they continued exposed to the heat of the sun. It has its inconveniences, however, and those not very trifling; for the plant is, of its own nature, acrid; and when the droughts set in, and the waters are reduced very low (which frequently happens in that island), they are over-heated, and so impregnated with the particles of this vegetable, that they frequently give bloody fluxes to such as are obliged to use them at those seasons; but this inconvenience may be, in some measure, remedied, by mixing flour, or some other sheathing substance, with it, if necessity obliges the use of it in such a state.—*Browne, p. 330.*

## DUMB-CANE:

## ARUM:

CL. 20, OR. 9.—*Gynandria polyandria*. NAT. OR.—*Piperita*.

GEN. CHAR.—See Coccoes, p. 211.

## SEGUINUM:

*Arum caule geniculato, cannæ indicæ foliis, summis labris degustantibus mutos reddens.* Sloane, v. 1, p. 168. *Caule erecto, geniculato, inferne nudo, foliis majoribus oblongo-ovatis.* Browne, p. 331.

Nearly upright; leaves lanceolate-ovate.

This rises to the height of six or seven feet, with a green jointed stalk, at the top of which the leaves are placed irregularly, growing in a cluster; they are oblong, and of

a light green colour. From between the leaves the flowers come out on the side of the stalk, having a long spathe of a pale green colour, marked with white spots, sitting close to the stem of the plant; at the first appearance it stands erect, soon after it becomes horizontal, and in a little time declines downward; the lower part is swelling so far as the flowers are ranged on the spadix, above which it is greatly contracted, and toward the top enlarges again, where it is a little open, so as to shew the naked part of the spadix, but is twisted again at the top; all the lower part folds closely over the spadix, so that it is scarcely discernible, unless the spathe be opened, which can only be done on one side, the other adhering closely to the spadix, so far upwards as the flowers extend, the naked part of the spadix only being separated from the spathe; so that the female flowers and stamens are ranged only on one side of the spadix; in which it differs from all the other species.—*Martyn.*

This is so called because, if any body bites of it, they cannot speak for some time; for it burns and benumbs the tongue, and causes a great flux of spittle. It grows in joints, appearing like green sugar-canes, and therefore so called; and some have been deceived in taking them for sugar-canes. Its fruit is like some of the *arums*; but the leaves are like Indian shot, or our water-pepper. It hath been used with good success in the dropsy, in the following manner: Take the greenest and most juicy, and beat it in a mortar into a kind of pulp; then add thereto double the quantity of hog's fat, or rather tortoise fat, or snake's fat; the which having agitated strongly together, let it lie for some days; then beat it well again, and keep it for use; observing, the longer it is kept it better answers the intention; but it must be heated and beaten now and then, lest worms breed in it. To prevent that, and also render the ointment more fine, safe, and agreeable, take of the mass, beaten as before, warm it, and strain it through a coarse cloth, which boil up to a due consistence, and keep for use; which is thus: Take of this ointment, and chafe it warm into the swollen parts, and apply as a cataplasm to the *scrotum*; by which method the watery humour will be discharged.—*Barham, p. 54.*

This plant is common in most parts of America, and grows chiefly in cool and moist places. The crude juice of the stalk is used to bring sugar to a good grain, when the juice is too viscid, and cannot be brought to granulate rightly with lime alone. *Trappam* recommends a decoction of the plant by way of fomentation in hydropic cases; and it certainly must be a strong resolute, which cannot fail to strengthen and stimulate the relaxed fibres in such cases.—*Browne.* *Piso* says the roots boiled in urine are a proper fomentation in the gout. The expressed juice is used for curing yaws; and the bruised leaves are mentioned in *Dr. Dancer's Medical Assistant* as useful in curing the itch, tetters, and ring-worm.

The following ingenious observations on the characters and virtues of this plant are extracted from the manuscript of Mr. Anthony Robinson:

"On the upper part and extremity of the spadix are placed, so as to cover it, a number of sessile, square, thin, tender, membranaceous, receptacles, to whose margin adhere some ten or twelve anthers; the spadix adheres to the spatha more than half its length, from its base on its interior side; on its exterior side, opposite the adherent part, are fixed two irregular series or rows of double or testiculated germs, with here and there a single one among them; they are green, shining, about twenty in number,

number, covered, when double, with two half-globose stigmas moist and yellow, and, when the germ is single, with one stigma only. I cannot be brought to think that the *arum* should be classed *gynandria*. Certainly the anthers grow not upon the style nor germ, but upon the spadix, which has been improperly termed the pistil. The dumb-cane should be classed *monoecia decandria*, or *dodecandria*. Why should it not be so classed as well as the palms.

"The obvious qualities of the dumb-cane are penetrating, thinning, and resolving. It also abounds in some seasons of the year with a caustic oil, which will blister the tongue and bring off the skin; but this does not happen always, and at some particular seasons only.\* One day in July I happened to cut one of the leaves off at the pedicel, and, applying it to my tongue, I immediately felt an inexpressible pain, or rather burning, as if an actual cautery had been applied to it; yet this sensation differed greatly from that caused by *canella alba*, or such hot, acrid, aromatic, medicines, as affecting only that particular part chiefly; the rest of my mouth was affected, as is observed in common after taking the European *arum*, but the skin only came off from that part of my mouth which had touched the plant. I found oil of olives and milk both ineffectual, though applied directly, and it was with the most inconceivable difficulty that I could utter a single monosyllable: I was therefore obliged, for some hours, to communicate my thoughts by means of pen and ink. A gentleman tasted the same with his tongue the moment after me, but was not nearly so much affected, nor did his tongue blister, and a third gentleman some minutes after the second, and was still less affected thereby. It may be remarked in cutting this plant, either in its stem or pedicel of the leaves, that a milky juice issues from it, not from the whole transverse section, but from some particular vessels, in which resides the caustic oil above-mentioned; and, as the most part that will flow from a section of the pedicels is thrown out instantaneously, it is reasonable to suppose the greatest quantity fell to my share, less to the second gentleman, and still less to the third; and least some should conclude that a plant abounding with such an oil must be poisonous, it may not be amiss to put them in mind that the tea, which is so very commonly drank in all parts of the globe, also abounds with an acrid oil, which being of a penetrating active nature may, by its stimulating quality, be the cause of the watchings or anti-narcotic quality observed after drinking it late in an evening; whereas the oil of the dumb-cane causes sleep. The method of preparing it is to mix a fourth part of common distilled rum with three-fourth's of the juice, expressed from the stem or roots indifferently, of which a common spoonful may be taken every morning and evening; the juice in this quantity is greatly narcotic and resolving. The narcotic quality I am well assured of by my own experience; its resolving quality is obvious, by its rendering the saliva fluid for many hours after taking so small a dose as a common tea spoonful; this was farther evinced by its draining off all the water in a dropsical patient, who had not only his abdomen but his scrotum filled in a week after he had been tapped; upon his taking this in a proper quantity, added to a diuretic decoction, all the water ran dripping out of the orifice made by the trocar, both from the belly and scrotum. Dr. Trapham's method of curing dropsies by an ointment

\* Dr. Wright says he never could find a patient capable of swallowing it; perhaps this may have been occasioned by his administering it in such seasons, (which is said to be in October, the rains at that time probably filling it more than usual with sap,) as its caustic qualities prevailed the most in. The doctor mentions that a negro woman, who had been long ailing, in a fit of despair eat a good deal of the dumb-cane, with a view to destroy herself. It excoriated her mouth and throat much, and she voided many worms, but recovered her health soon after.

ointment made of this plant, mixed with hogs-lard or snakes-fat, proves of what great service this may be in dropsies, and possibly might give the hint of rubbing the abdomen with oil of olives for the cure of the same, and may shew that frictions with oil may be of greater service in medicine than is commonly imagined, though I must confess I am at a loss to account for its mode of acting in this case. No insect feeds upon any part of the dumb-cane. It continues uncorrupted for a considerable time after taken out of the earth, but the juice loses its acrimony and becomes sour in two days."

No English Name.

DURANTA.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Personata*.

So named in memory of Castor Durantes, physician to Pope Sextus V. who published an Herbarium, 1584.

GEN. CHAR.—Calyx a five-cleft superior perianth, one-leafed; corolla one-petaled, border five-parted; stamens four filaments, two longer, within the tube; anthers roundish; the pistil has a roundish inferior germ, filiform style, and thickish stigma; the pericarp a roundish berry, covered by the calyx; seed four-kernels, two-celled. One species is a native of Jamaica.

ELLISIA. ELLIS.

*Jasminum folio integro obtuso, flore caeruleo racemoso, fructu flavo.*—Sloane, v. 2, p. 97. *Frutescens quandoque spinosa; foliis ovatis, utrinque acutis, ad apicem serratis; spicis alaribus.* Browne, p. 262, t. 29, f. 1.

Fruiting calyxes erect.

This grows ten or twelve feet high, having near its top several branches with leaves opposite to one another; petioled, ovate-lanceolate, acuminate, serrate, nerved, smooth on both sides. Racemes compound, terminating, brachiate, many-flowered; flowers blue, on short peduncles. Browne made this a distinct genus, under the name *ellisia*, in honour of Mr. Ellis, the author of a Treatise on Zoophytes. It seems doubtful whether Browne's and Sloane's plants be the same, although they agree in many particulars, for Sloane describes the leaves to be in tufts like those of the calabash, which is not the case in Browne's figure, the leaves being single and opposite. He says it grows chiefly in the lowlands, and rises only six or seven feet; and that they were so very like the leaves of green tea, he tried some experiments before he was convinced it was not the same plant; he adds the branches were sometimes beset with thorns but often without; and named it the *tea-leaved ellisia*.

DUTCH GRASS—See DOG'S-TAIL GRASS.

DUTCHMAN'S LAUDANUM—See BULL-HOOF.

DWARF ELDER:

URTICA.

CL. 21, OR. 4.—*Monoecia tetrandria*.

NAT. OR.—*Scabridae*.

See 2

Gen.

**GEN. CHAR.**—Male flower :—Calyx four-leaved, leaflets roundish, concave, obtuse; there are no petals; the nectary in the centre of the flower, cup-shaped, entire, narrower below, very small; the stamens are four awl-shaped filaments, length of the calyx, spreading, each within each calyx leaf; anthers two-celled. The female flower :—Calyx a two-valved ovate perianth, concave, erect, permanent; there is no corolla; the pistil has an ovate germ, no style, villose stigma; there is no pericarp; the calyx converging; seed one, ovate, blunt, compressed, shining. Eighteen species of this genus have been discovered in Jamaica, the following, and those placed under the name *nettle*.

GRANDIFOLIA. LARGE-LEAFED.

*Urtica iners racemosa sylvatica, folio nervoso.* Sloane, v. 1, p. 124, t. 83. f. 2. *Erecta foliis ovato-acuminatis trinerviis nitidis, racemis compressis.* Browne, p. 337.

Leaves opposite, ovate; stipules cordate, undivided; racemes paniced, length of the leaves.

From a small stringy, brown, root springs a cornered green stalk; the stem is a foot and four inches high, and its leaves a span in length; they are rough, a little indented about the edges, with three ribs running from the end of the footstalk through the leaf, with several transverse ones. The flowers are in racemes, larger and smaller, brownish, white, green, and red, very small, of a pleasing figure. It grows in shady moist places, and flowers in the middle of summer. Browne says it is common in all the cooler gravelly banks of the higher hills.

This plant is so called because it something resembles the European dwarf-elder, being a short plant, with a round jointed stalk and a reddish fruit; but its leaves are much like the large English nettle, with large nerves or veins. It delights in shady places. A colonel, who had lived many years in Jamaica, affirmed to me, that it was a certain cure for the dropsy, purging off the water gently by urine and stools, by giving its juice or strong decoction.—*Burham, p. 55.*

See NETTLES.

DWARF PIMPERNEL.

ANAGALLIS.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Rotaceæ.*

**GEN. CHAR.**—Calyx a five-parted perianth; corolla wheel-shaped, border five-parted; stamens erect filaments, with simple anthers; the pistil has a globose germ, a filiform style, and capitate stigma; the pericarp a globose one-celled capsule, opening transversely; seeds very many, angular; the receptacle globose, very large. One species is a native of Jamaica.

PUMILA. DWARF.

Stem erect; leaves roundish, acute, sessile.

This species of pimpernel is an annual plant, and was discovered in Jamaica by Swartz.

EAR

## EAR-WORT.

## HEDYOTIS.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Stellatæ*.

This generic name is derived from two Greek words signifying sweet and an ear, some of the species being reputed a specific in deafness.

GEN. CHAR.—Calyx a one-leafed perianth, four-parted, superior, permanent; parts linear, sharp; corolla one-petaled, funnel-shaped, a little longer than the calyx, half four-cleft; the stamens are four filaments, subulate, inserted at the sinuses of the corolla, with roundish anthers; the pistil has a roundish inferior germ, a filiform style, the length of the stamens; stigmas two, thickish; the pericarp is a twin-globular capsule, two-celled, inferior; seeds many, angular.—One species is a native of Jamaica.

## RUPESTRIS.

*Thymalea maritima ericæ foliis, surculis tumidis et tomentosis*.—Sloane, v. 2, p. 94, t. 202, f. 1.

Leaves four-faced, awl-shaped, channelled; flowers sessile, axillary; corollas villose, with a crooked tube.

This shrub rises from three to five feet high, having woody diffused branches, pro-cumbent at the base, otherwise erect, they are generally covered with remnants of the footstalks of the leaves, which drop off and are usually reddish, with wool of a whitish colour between them, lying like scales over one another. The leaves grow at the tops of the twigs, they are short, linear, fleshy, convex, numerous, of a dirty green colour, like the leaves of heath, and of a saltish-biting taste. The petioles are united on each side by a membrane embracing the branch, and blunt with a point. The flowers are yellow, without scent, sessile, axillary, solitary; the germ and part of the corolla is concealed within the sinus of the leaf; there is a single stipule on each side of the germ, of the same length and form with the calycine leaflet. It grows on rocks on the sea coast.—Sloane & Jacquin.

## EBONY, JAMAICA.

## AMERIMNUM.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

Browne named this *amerimnon*, which is the Greek word for any thing void of care, or in a state of security.

GEN. CHAR.—Calyx a one-leafed perianth, tube bell-shaped, five-toothed, teeth sharp; corolla papilionaceous, the standard has an oblong claw, roundish, heart-shaped, expanding, convex; wings lanceolate, shorter than the standard, keel short; the stamens are ten conjoined filaments, with roundish anthers; the pistil has a pedicelled germ, oblong, compressed-leafy, varicose, with lateral veins, within woody, not gaping, cells disposed longitudinally within; seeds solitary, kidney-shaped, thicker at the base, appendiced at the top. There are two species, both found in Jamaica.

L. BROWNE.

## 1. BROWNEI. BROWNE'S.

*Fruticosum ; foliis nitidis, simplicibus, cordato-acuminatis* Browne, p. 288, t. 31, f. 3.

Unarmed ; leaves petioled, alternate, subcordate-ovate ; racemes compound, axillary, and lateral.

This shrub grows very commonly in the lowlands. It grows very bushy, to the height of from seven to ten feet, and supports itself upon other shrubs. It divides into long round branches, covered with a blackish bark, and subdividing into a great number of alternate twigs. Leaves quite entire, sharp, shining, two or three inches in length. The common peduncles sustain about ten flowers, which are small, white, and have a very sweet scent, and come out in great abundance after every rain. The standard of the corolla after fecundation becomes erect, whereas before it spread out wide.

## 2. EBENUS. EBONY.

*Aspalathus arboreus, seu pseudo-ebenus buxi folio, flore luteo patulo, siliqua, lata, brevi chartacea, semen exiguum, reniforme compectente.* Sloane, v. 2, p. 31, t. 175, f. 1. Brya.—*Arborescens, erecta, spinosa ; foliolis confertis, floribus geminatis.* Browne, p. 299, t. 31, f. 2.

Spiny ; leaves sub-sessile, aggregate, obovate-oblong ; peduncles two-flowered.

This tree has a pretty thick stem, frequently crooked, and is common in all the hills and lower savannas in Jamaica. Sloane says it rises forty feet, Browne only fourteen or fifteen feet. It has a dark brown furrowed bark. The external bark frequently separates, and appears like uncombed hemp, it is tough, and used as twine by the negroes. The branches are beset with many small prickles, they are tough and flexible, and the smaller ones are frequently used for riding switches. They appear naked in dry weather. The flowers are thick set on the branches, they are of a yellow colour, papilionaceous, and very open, having a sweet smell : the leaves, which succeed the flowers, are small and roundish at top, where they are largest, of a dark green colour, smooth, and shining ; the pods are very thin and brown, containing one seed. The wood of this tree is of a fine greenish brown colour and capable of a very fine polish, of a very hard durable nature, and much used by instrument makers. It is however very different from the East India ebony. It is propagated from seeds.

*Ebony.*—This tree grows every where in the savannas. It hath a small leaf like box, and a yellow flower like English broom, and, after rains, puts forth its flowers, making the savannas look like English broom-fields. Its heart, or inner part, is as black as jet. The oil of it cures the tooth-ache, cotton being dipped in it, and put into the hollowness.—*Barham, p. 56.*

## EBONY, MOUNTAIN.

## BAUHINIA.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Lomentaceæ.*

This genus was so named in honour of two celebrated botanists, John and Caspar Bauhin.

GEN.



GEN. CHAR.—Calyx five-cleft, deciduous, gaping; the corolla five oblong petals, waved and expanding, with claws, the upper one more distant, lower ones larger, all inserted into the calyx; the stamens are ten filaments, declining, shorter than the corolla, the tenth the longest; anthers ovate, always on the tenth, seldom on the rest; the pistil has an oblong germ, sitting on a pedicel; style filiform, declining; stigma obtuse, rising; the pericarp is a long legume, sub-columnar, one-celled; the seeds are many, roundish, compressed, placed according to the length of the legume. One species of this genus is a native of Jamaica.

PORRECTA. STRETCHED.

*Genæ spurie aut aspalatho affinis arbor siliquosa foliis bifidis, flore pentapetalo vario.* Sloane, v. 2, p. 51. *Foliis bilobis, spicis laxis terminalibus.* Browne, p. 286.

Leaves cordate; lobes porrected, acute, three-nerved; petals lanceolate.

This tree rises about fifteen feet high, having several straight trunks, about the thickness of a man's leg, covered with a whitish bark, dividing into many branches and twigs, making a pleasant top. The leaves stand without any order, on inch long foot-stalks, they are three inches long and two broad, where broadest, of an odd shape, something like that of shears wherewith sheep are shorn, having points, as if a piece were cut out, or having a deep incisure or notch, they are round at the base, of a yellowish green colour, smooth, thin, having seven or more ribs with some transverse ones, making the whole very nervous. The flowers come out at the ends of the twigs, several together, on pedicels half an inch in length; the petals are long, red and white variegated or striated; stamens long and white; legumes brown, five or six inches in length. It grows every where on the hills in Jamaica. The wood is very hard, and veined with black, whence the name of ebony. The decoction is a good lotion for ulcers; the root boiled in wine cures pustules in the ear, being rubbed with it. The flowers beaten with pepper and applied to the forehead cures the head-ach.—*Sloane.*

Three East India species of this genus have been introduced, and are in the Hortus Eastensis, viz. the *purpurea*, *scandens*, and *variegata*.

ECASTAPHYLLUM—See PTEROCARPUS.

EDDOES—See COCOES.

#### EGG-PLANT.

#### SOLANUM.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Luridæ.*

GEN. CHAR.—See Calaloe, branched, p. 141. Some of these plants have from six to seven stamens, and the calyx and corolla the same number of segments.

#### MELONGENA.

*Solanum pomiferum quartum, sive fructu oblongo.* Sloane, v. 1, p. 237. *Hirsutum et spinosum, fructu maximo, calice majori spinoso.* Browne, p. 173.

Stem

Stem herbaceous ; leaves ovate-tomentose ; peduncles pendulous incrassated.

There are three or four varieties of this plant, some prickly some unarmed, the *insanum*, or species described by Sloane and Long, is so nearly allied to this that it cannot be considered more than a variety. It is sometimes called *brown jolly* or *mad-apple*, and a large kind was some years ago introduced from the East Indies, called *badinjan* or *banjham*. They all thrive very luxuriantly, and have been generally cultivated in Jamaica, in gardens. The root is composed of a multitude of fibres and does not descend very deep ; it rises with purplish downy stems ; the branches are put forth near the ground, reclining, and frequently run on it ; they are pretty thickly covered with leaves, which stand in pairs, and have stipules ; they have a loose down, are moderately large, ovate, deeply sinuated about the edges, and stand on long petioles, in some of the varieties armed with prickles. The flowers are usually single, sometimes two or three together, they are longish, and of a pale violet colour, with yellow anthers and green stigmas ; the peduncles are axillary, thickened, bent down. The fruit is in some of a beautiful purple colour, in others violet, whitish, or variegated ; some of them half a foot in diameter, or more, having a bitterish tasted skin. The fruit is often introduced at table both boiled and dressed as turnips, as well as fried, and either way is an agreeable food, and accounted to be aphrodisiac. Boiled with wine and pepper they taste like artichokes. They are natives of the East Indies, and some of them long ago introduced into Jamaica by the Jews, who sliced and pickled them for a few hours, and then boiled them as a green. The fruit of the *badinjan* is by far the largest, some of them having been found to weigh from seven to ten pounds each. All the plants are easily propagated from seeds.

*Mad Apples*.—These are tribed among the *solanums*, or nightshades ; they are vulgarly called *valanghanna*, in Jamaica. The only reason, that I can find, why they are called mad apples is, because they bear some resemblance to mandrakes : Some have fancied they were the male mandrake, and, imagining them to be poisonous, did for that reason call them mad apples : But I know by experience to the contrary, having eaten many of them, both boiled and fried ; but the best way is to parboil them, taking off their outer skin, which is a little bitterish, and then fry them in oil or butter. I planted, above twenty years ago, half an acre of ground with them, on which my slaves fed, and were well pleased with the food. They eat something like a squash, but better than any of the pompion kind ; and are so well known in America, as to need no particular description. Angola negroes call them *tongu*, and the Congo negroes *macumba*.—*Barham*, p. 93.

See CALALUE, prickly—CANKER BERRY—NIGHTSHADES—POTATOES—TOMATOES—TURKEY BERRIES.

ELDER—See PEPPER ELDER.

#### ELEPHANT'S FOOT.

#### ELEPHANTOPUS.

CL. 19, OR. 5.—*Syngenesia polygamia segregata*. NAT. OR.—*Composita*.

This was so named from the shape of the lower leaves of the first species resembling the foot of an elephant.

GENE

GEN. CHAR.—Calyx—Involucre of three broad sharp leaflets, many flowered, large, permanent, without an umbel; partial perianth four-flowered, oblong, imbricate; corolla compound, tubular, hermaphrodite, corollets; stamens five short capillary filaments; anthers cylindric; the pistil has an ovate germ, filiform style, two stigmas; there is no pericarp, the calyx unchanged; seeds solitary, compressed; down bristle-form; receptacle naked. Three species are natives of Jamaica.

## 1. SCABER. . . ROUGH.

*Scabiosa affinis anomala sylvatica, enula folio, singulis flosculis albis in eodem capitulo perianthea habentibus, semine papposo.* Sloane, v. 1, p. 263, t. 156, f. 1, 2. *Erectus; foliis oblongo ovatis rugosis atque serratis, floralibus cordiformibus ternatis; capitulis remotis terminalibus.* Browne, p. 312.

Leaves oblong, scabrous.

The stem is round, striated, and rough, rising three or four feet; the leaves have half inch long footstalks, they are large, rough, or corrugated, and woolly underneath, and become smaller towards the top. It is adorned with a great number of flowers, gathered into pretty large heads, at the extremities of the branches, supported by hoary inch-long footstalks. The seeds are of an oblong form, and crowned each with five little bristles. The general footstalks are very long, and terminate the branches; but, at the separations of them, may always be observed a smaller head growing to the stem, without any supporter. It grows in the woods of Jamaica very plentifully, and is a good vulnerary. The leaves are frequently used instead of *sardius benedictus* in the French islands.—Sloane & Browne.

## 2. SPICATUS. . . SPIKED.

*Coryza major inodora, helenii folio integro siccò et duro, cichorii flore albo e ramorum lateribus exeunte.* Sloane, v. 1, p. 256, t. 150, f. 3, 4. *Erectus hirsutus; foliis inferioribus ovatis, utrinque productis, floralibus oblongis; capitulis alaribus.* Browne, p. 311.

Leaves ovate-lanceolate, serrate, scabrous; bundles of flowers sessile, lateral; stem branched.

At first coming up it has many leaves five inches long; and an inch and a half where broadest; beginning very narrow, they continue so for two inches, and end in a round point; they are hard, smooth, dark green, and indented about the edges. From among these a round, strong, green stalk rises, four feet high, with an embracing leaf at each joint: it has branches towards the top, standing round at every joint, divided into others which are beset with smaller leaves. From the axils of these come out the white flowers, without any peduncle, standing in small green leaves. It grew on the banks of the Rio Cobre and at Guanaboa. The stalks and leaves being hard are made use of for broom to sweep houses.—Sloane. Browne calls it the *smaller erect elephantopus*, with the flowers disposed at the aise of the upper leaves, and says it is common in most parts of Jamaica, growing chiefly in open gravelly lands, rising to the height of fifteen or twenty inches, or more. The common receptacles of the flowers rise singly from the axils of the upper leaves, and seem disposed in the form of a spike, but there are seldom more than four florets in each. The seeds are crowned with four little bristles.—Browne.

## 3. ANGUSTIFOLIUS. SMALL-LEAVED.

*Conyza inodora, helenii folio, integro, duro, angusto, oblongo, capitulis in lateribus ramorum conglomeratis.* Sloane, v. 1, p. 256, t. 148, f. 4.

Stem-leaves linear-lanceolate, entire, villose; flowers glomerate, in sessile and peduncled bundles; stem simple.

The root is large, oblong, whence rises a single, round, striated, hollow, stalk, about two feet high, having sessile leaves set on it alternately; their lower part, whereby they are joined to the stalk, having a membrane inclosing it; they are about five inches long, and half an inch broad near the top where broadest, ends round, are of a pale green colour and wrinkled. Towards the top come out the flowers in a spike, sessile, inclosed in an involucre of a few dry brown membranes, which are followed by small channelled seeds, having much pappus on them. I found it about Mount Diablo very plentifully.—Sloane.

ELISIA—See DURANTA.

ELM, SPANISH—See PRINCEWOOD.

ENGLISH PLANTAIN—See PLANTAIN.

ERIPHIA—See BESLERIA.

## No English Name.

## ERITHALIS.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Rubiaceæ.*

This name is derived from a Greek word signifying full of verdure.

GEN. CHAR.—Calyx a one-leafed, five or ten toothed, pitcher-shaped, perianth; corolla monopetalous, five-parted or five-petaled, with the divisions bent back; stamens from five to ten; anthers oblong; the pistil has an inferior roundish germ, filiform style, and sharp bifid stigma; the pericarp a globose berry, crowned, ten-celled, slightly ten-grooved; seeds small, in each cell one. One species is a native of Jamaica.

FRUTIGOSA. SHRUBBY.

*Fruticulosa foliis obovatis crassis nitidis oppositis, pedunculis ramosis ad alas superiores.* Browne, p. 165, t. 17, f. 3.

Leaves opposite; corymbs compound.

Browne mentions two species of this plant, which are thought to be only varieties, the *shrubby erithalis*, and the *arborescent erithalis*, the latter, he says, has the flowers in racemes, and the leaves entire and veined. He found both about the north-east parts of the island; the former growing among the cliffs that lie to the west of Port Antonio, and seldom rises above two or three feet; the other about Manchioneal Bay, where it grows to the height of eight or ten feet. Swartz observes that the berries are black, and the seeds about nine. Jacquin says the flowers are white, and mostly six stamened, and the calyx and corolla six cleft; smelling like common syringa.

ERNODEA—See SPURGE, branched.

No

No English Name.

EROTEUM.

CL. 13, OR. 1.—*Polyandria monogynia*. NAT. OR.—*Doubtful*.

GEN. CHAR.—Calyx a five-leaved perianth, leaflets ovate, concave, incumbent, permanent; corolla five-petaled, petals ovate-roundish, concave, entire, spreading; the stamens are numerous filaments (thirty), shorter than the petals, erect, filiform, placed on the receptacle; anthers roundish, minute; the pistil has an ovate, pubescent, superior, germ; style erect, generally longer than the stamens, awl-shaped, trifid at the tip, permanent; stigmas obtuse, simple, reflex; the pericarp is a roundish berry, juiceless, acuminate with the permanent style, smooth, three-celled; seeds in three's or four's, oblong, compressed a little. There are only two species, both found by Swartz in Jamaica.

1. THEOIDES. • TEA-LIKE.

Leaves ovate-lanceolate, serrate-toothed; flowers axillary, solitary.

2. UNDULATUM. • WAVED.

Leaves elliptic-lanceolate, acuminate, serrate; flowers crowded, axillary.

Branches flexuose at top, hairy-tomentose, especially towards the tip. Leaves alternate, two or three inches long, coriaceous, broad-lanceolate, acute at both ends, smooth, paler underneath, thicker at the edge; the younger ones nerved, and hairy underneath; petioles very short; peduncles four or five, but sometimes solitary, one-flowered, the same length with the petioles; calycine leaflets ovate, very finely ciliate, obtuse. It varies with smooth branches.

ERYNGO OR FITWEED.

ERYNGIUM.

CL. 5, OR. 2.—*Pentandria digynia*. NAT. OR.—*Umbellatæ*.

GEN. CHAR.—Calyx, common receptacle, conic, chaffs separating the sessile floscules; involucre of the receptacle many leaved, flat, exceeding the floscules; perianth proper five-leaved, upright, sharp, exceeding the corolla, seated on the germ; corolla universal, uniform, roundish, floscules, all fertile; proper five-petaled, petals oblong, the tips bent inwards to the base, straitened longitudinally by a line; the stamens are five filaments, capillary, straight, exceeding the floscules; anthers oblong; the pistil has a hisped inferior germ; styles two, filiform, straight, length of the stamens; stigmas simple; the pericarp is an ovate fruit, divisible in two directions; seeds oblong, columnar. One species is a native of Jamaica.

FÆTIDUM. • STINKING.

*Eryngium foliis angustis serratis fætidum*. Sloane, v. 1, p. 264, t. 156, f. 3, 4. *Fætidum foliis inferioribus angustis serratis, superioribus laciniatis et aculeatis*. Browne, p. 185.

Root leaves lanceolate-serrate; floral leaves multifid; stem dichotomous.

This plant has something of the appearance of a thistle, and very common in Jamaica. It has six or seven round smooth whitish roots, about ten inches long, going straight.

straight down into the earth, and uniting in one towards its surface. The leaves spread on the ground on every hand to the number of five or six, eight inches long, and one broad near the end where broadest, very deeply serrated, and having on their edges soft prickles. From the centre of the leaves rise one or two stems a foot or more high, somewhat angular, green, dichotomous, spreading, having at the division two deeply cut, prickly, short, leaves. The leaves on the branches opposite, stem-clasping, with their edges toothed. The seeds set round a small column, are brown, with hemispheric dots. All parts of the plant have a very penetrating strong, though not very unsavoury, smell. It is counted a great alexipharmic. The distilled water is reckoned extremely useful to resist hysteric fits.—*Sloane*.

The root powdered, and taken to the quantity of three drachms, in ten ounces of water, strengthens a weak and cold stomach, eases pains of the belly and other parts from colds, dissipates wind, is good for cholic and Iliac diseases, is diuretic, and helps the catamenia, cures surfeits, incites venery, and is good against the bites of venomous serpents. It has a better effect if it be given out of a hot and strengthening liquor, it dissipates preternatural tumours and humours of the joints, and remedies all cold intemperatures.—*Hernandez*.

All the parts of this plant are reckoned powerful anti-hysterics and epileptics, administered in decoctions or infusions, hence it has been called *fitweed*; it is also said that the decoction has been found useful in asthmatic complaints. Barham says it tastes like skirrets, and, having a strong smell, is good against hysterics if only smelt.

## ESCHALOT.

## ALLIUM.

CL. 6, OR. 1.—*Hexandria monogynia*.

NAT. OR.—*Spathaceæ*.

GEN. CHAR.—Calyx a common spathe, roundish, withering, many-flowered; corolla six oblong petals; stamens six filaments, subulate, often the length of the corolla, with oblong upright anthers; the pistil has its germ superior, short, bluntly three-cornered, the corners marked with a line; style simple; stigma sharp; the pericarp is a very short capsule, broad, three-lobed, three-celled, three-valved; seeds few, roundish. Several species of this useful genus have been introduced, and generally cultivated with success.

## 1. ASCALONICUM.

Scape columnar; leaves awl-shaped; umbel globose; stamens three-cusped.

The eschalot was found wild in Palestine by Dr. Hasselquist. The root is conglobate, consisting of many oblong roots, bound together by thin membranes. Each of these small roots sends forth two or three fistulous, long, awl-shaped leaves, issuing from a sheath, and are pearly like those of the common onion. The flower-stem shoots from a membranaceous sheath; is round, almost naked, and terminated by a globular umbel of flowers, which have erect purplish or blueish lance-shaped petals of the length of the stamina. The root of this species is very pungent, has a strong but not unpleasant smell, and therefore is generally preferred to the onion for making high flavoured soups and

and gravies. It is also put into pickles, and in the East Indies they use an abundance of it for this purpose. It thrives well in Jamaica.

The eschalot is easily propagated from the smaller roots or offsets, and the time of taking them up is determined by the withering of the leaves.

### 2. PORRUM. LEEK.

Umbel globose; stamens three-cusped; petals with a rough keel; root coated.

This is the common *leek*, which is leafy at bottom. The spathe is shortly conical, deciduous. Flowers in a close large ball, on purple peduncles; corolla also purplish. The leek is propagated from seeds, which are known to be ripe by the heads hanging down. The leaves are much of the same nature with those of the scallion, noticed under the article onion, of which it is a variety.

### 3. SCHOENOPRASUM.

This is the *cive* or *chive*. The leaves are awl-shaped, hollow, and the stem naked; bulbs long, flat, oval, connected by recti-linear planes. This is a small sort of onion, and has much the same taste, smell, and virtues; it is propagated by parting the roots.

See GARLIC and ONION.

ESSENCE OF LEMON TREE—See SAVIN TREE.

No English Name.

ETHULIA.

CL. 19, OR. 1.—*Syngenesia polygamia equalis*. NAT. OR.—*Compositæ*.

GEN. CHAR.—Calyx many-leaved, leaflets linear; corolla compound, tubular, corollets hermaphrodite; stamens have five filaments, with cylindric anthers; the pistil has a prismatic germ, a filiform style, and two recurved stigmas; there is no pericarp, the calyx unchanged; seeds solitary, no down; receptacle naked, convex, excavated with points. One species is a native of Jamaica.

### STRUCHIUM.

*Herbaceum sub-assurgens, foliis oblongo ovatis, utrinque productis, capitulis constipatis ad alas*. Browne, p. 312, t. 34, f. 2.

Flowers axillary, sessile, all trifold.

This rises generally to the height of two feet and a half, or more; the leaves alternate, oblong, entire. Flower bunches interspersed with a few smaller ones, that rise between the common cups, as they stand compacted together at the axils of the leaves. Calyx bell-shaped, imbricate, with unequal narrow acuminate scales; from erect spreading; corollets nearly equal, the marginal ones trifold, the central four-parted; germ oblong, angular, crowned with its proper calyx, which has about four little notches; style longer than the corolla; stigmas oblong, revolute; receptacle tumid, dotted.—*Browne*.

ETTOW—See CLAMMY CHERRY.

EYEBRIGHT.

## EYEBRIGHT.

## EUPHORBIA. •

CL. 11, OR. 3.—*Dodecandria trigynia*. NAT. OR.—*Tricoccæ*.

This is derived from Euphorbus, physician to King Juba.

GEN. CHAR.—Calyx a one-leafed perianth, inflated, somewhat coloured, four-toothed at the mouth, in some five-toothed, permanent; corolla four-petals, some five, turbinate, gibbous, thick, truncate, unequal in situation, alternate with the teeth of the calyx, with their claws on their margin, permanent; the stamens several filaments (twelve or more), filiform, jointed, inserted into the receptacle, longer than the corolla, breaking forth at different times; anthers twin, roundish; the pistil has a roundish germ, tricoccous, three-celled, starting open elastically; seeds solitary, roundish. Eleven species are natives of Jamaica, the following, and those described under *spurges*.

## MACULATA. SPOTTED.

*Chamaesyce*. Sloane, v. 1, p. 198.

Leaves serrate, oblong, hairy; flowers axillary, solitary; branches patulous.

This is an acrid and milky plant, readily springing from the seed, and growing commonly in Jamaica. The stems are numerous, and spread close to the ground; leaves oblong, obtuse, and sometimes acute, obscurely denticulated on the superior part, smooth on the surface, but edged with hair on the back and margin, extremely numerous, green, or red, or deep purple, and sometimes spotted, thickly crowded on the tips of the branches in particular; flowers very small, on very short footstalks from the bosoms of the leaves; calyx green, petals red, capsule hairy.

This is a sort of thyme, the smallest spurge of them all, and the most common, for it grows every where, even in the streets, between paved stones and bricks. I have known several persons use it, with good success, to take off the spots or films on the eyes, that have come after the small-pox, and that by only dropping the milky juice into them; but I should think it more safe to mix it with a little honey, for it eats off all sorts of warts. The people in Jamaica call it eye-bright, for its great cures to the eyes.—*Barham*, p. 182.

It is mentioned by Sloane, that, boiled with victuals or sallet, this plant loosens the belly; and that writing with its juice is not discovered but by ashes.

See SPURGES.



FAN PALM—See PALMETO.

FELWORT—See SPIRIT LEAF.

## FENNEL.

## ANETHUM.

CL. 5, OR. 2.—*Pentandria digynia.* NAT. OR.—*Umbellatæ.*

GEN. CHAR.—The general umbel is multiple, as is the partial, neither has an involucre; the general corolla uniform, the single flowers consist of five lanceolated, involute, entire petals: the stamens five capillary filaments, with roundish anthers; germ inferior; styles small, stigmas obtuse; fruit naked, sub-ovate, convex, striated on one side, plain on the other. Two species have been introduced.

## 1. FENICULUM, FENNEL.

Fruits ovate.

This plant is a native of Europe, and must have been introduced a long time ago into Jamaica, as it is now found growing wild in many parts, and thrives as well as if a native. There are two varieties of this plant, the common and the sweet. The sweet is smaller in all its parts than the common, except the seeds, which are considerably larger. The seeds of the two sorts differ likewise in shape and colour; those of the common are roundish, oblong, flattish on one side, and protuberant on the other, of a dark almost blackish colour; those of the sweet are longer, narrower, not so flat, generally crooked, and of a whitish or pale yellowish colour. Both the seeds and roots are used in medicine. The seeds of both the fennels have an aromatic smell, and a moderately warm pungent taste: those of the sweet fennel are in flavour most agreeable, and have also a considerable degree of sweetness; hence our colleges have directed the use of these only. They are ranked among the four greater hot seeds, and not undeservedly looked upon as good stomachics and carminatives. A simple water is prepared from them; they are ingredients also in the compound spirit of juniper, and some other officinal compositions. The root is far less warm, but has more of a sweetish taste, than the seeds; it is one of the five roots called *openers*; and has sometimes been directed in aperient apozems. Boerhaave says that this root agrees in taste, smell, and medical qualities, with the celebrated *ginseng* of the Chinese; from which, however, it appears to be very considerably different. The leaves of fennel are weaker than either the roots or seeds, and have very rarely been employed for any medicinal use.

## 2. GRAVEOLENS. STINKING.

Fruit compressed.

This is called *dill*, an annual plant, also a native of Europe: the root long, slender, and white; the leaves are divided into a multitude of fine, long, narrow, segments, like those of fennel, but of a blueish green colour, and less strong smell. The stalk is round and firm, growing to the height of four feet, with yellow flowers in moderately large umbels. It was introduced into the Botanic Garden, Liguanea, by Hinton East, Esq. The seeds are the only part used. They are of a pale yellowish colour, in shape nearly

nearly oval, convex on one side and flat on the other. Their taste is moderately warm and pungent; their smell aromatic, but not of the most agreeable kind. Several preparations of them are kept in the shops. They are recommended as a carminative, in flatulent cholics, proceeding from a cold cause or a viscosity of the juices.

## FERN.

## FILIX.

THIS name is derived from *filum*, a thread, from the threadiness of these plants, for which this is a general name; they constitute the first order of Linneus' class *cryptogamia*, called *cryptogamia filices*. The fructification of this curious and natural order differs essentially from all others, at least in its situation; being generally disposed either in spots or lines on the under surface of the leaves or fronds. There being no certain distinctions in the fructification sufficient to establish the genera, and the parts being too small to be observed without the assistance of considerable magnifiers, the genera are chiefly distinguished by the disposition of the seeds under their covers.—The general structure of the fructification in this order is the following: The calyx is a scale, springing out of the leaf, opening on one side; under this scale, commonly supported by little footstalks, but sometimes sessile, are globules for the most part encompassed by an elastic ring; these burst with violence, and scatter a powder, which is supposed to be the seed. These globules or seed vessels are covered by a very fine thin semi-transparent skin, which bursts open before the seeds are ripe. When they are ripe, the ring or cord endeavours to become straight, and by its elasticity bears open the capsule, which then forms two hemispherical cups. This curious mechanism may be observed by the assistance of a good single microscope, with a reflecting speculum. The powder which is dispersed in this manner is so minute as hardly to be visible to the naked eye. That it is the seed has been proved, by actually raising plants from that of the hart's tongue by Morrison; and lately in the most satisfactory manner by Mr. John Lindsay, formerly surgeon in Jamaica, from the *polypodium lycopodioides* (see Polypody), and related by him in the Linnean Transactions, v. 2, p. 98.

The uses of ferns are little known; they grow in great plenty in Jamaica, and are the worst weeds known, it being almost impossible to eradicate them, their roots taking such fast hold of the ground, some of them having been found to the depth of eight feet. If cut when green and left to rot, the leaves are said to form a good manure.—Few of them are esculent. They have a disagreeable heavy smell. In large doses they are said to destroy worms, and some of them are purgative. In many parts of England, it is common to burn them and make balls of the ashes, with a little water, which they dry in the sun; they are called ash-balls, which are made use of to wash linen, and are considered nearly as good as soap; and might be rendered very useful for that purpose, for scouring and cleansing negro clothing. The balls, before they are used, are made red hot in the fire, and readily fall into powder when thrown into water. There are about one hundred and twenty different species of fern known in Jamaica, for particular descriptions of which.

See BLECHNUM—FERN, *female*—FORK-FERN—GOLDY LOCKS—HORSE TAIL—MAIDEN-HAIR—MARATTIA—MARSILEA—MOONWORT—MULES FERN—POLYPODY—SERPENT'S TONGUE—SPLEENWORT—WOLF'S CLAW.

FERN.

# HORTUS JAMAICENSIS.

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FERN, female.

PTERIS.

CL. 24, OR. 2.—*Cryptogamia filices.* NAT. OR.—*Filices.*

This takes its name from a Greek word, signifying a wing, on account of its winged leaves.

GEN. CHAR.—Fructification in an uninterrupted marginal line; involucre from the margin of the frond turned in, uninterrupted, separating on the inner side.—Thirteen species have been discovered in Jamaica.

*The following have simple fronds:*

1. ANGUSTIFOLIA. SMALL-LEAVED.

Fronds lanceolate-linear, entire, erect, fruiting along the whole edge.—Sw.

2. LINEATA. LINEAR.

Fronds linear, quite entire, fruiting longitudinally.

*The following have pinnate fronds:*

3. GRANDIFOLIA. GREAT-LEAVED.

*Erectum simplex, foliis oblongis marginatis et leniter undulatis.*—Browne, p. 105. Acrosticum 6.

Pinnae opposite, ovate-linear, acuminate, quite entire.

This plant is called, by Browne, an *acrosticum*, and he says it grows in the cooler mountains, and seemed to like a free, open, gravelly soil, and seldom rises above three feet and a half from the ground. He makes it the same plant as Sloane's, v. 1, p. 84, N° 41, *acrosticum marginatum*, described under the article *fork fern*.

4. LONGIFOLIA. LONG-LEAVED.

*Simplex, foliis impetiolatis longis angustis auritis.* Browne, p. 90.

Pinnae linear-repand, cordate at the base.

This plant seldom rises above fourteen or sixteen inches, and is remarkable for its narrow simple leaves, and undivided stalk.—Browne.

5. DENTICULATA. SAW-TOOTHED.

Lower pinnae semi-pinnate, lanceolate, the barren ones toothlet-ciliate, the fertile ones quite entire.—Sw.

6. VITTATA. FILLETED.

*Simplex assurgens, foliis longioribus lanceolatis, petiolis brevibus.*—Browne, p. 90.

Pinnae linear, straight, rounded at the base.

This plant springs from a large firm root, and rises commonly to the height of twelve or sixteen inches, sometimes more; it grows in moist, cool, shady, places, but thrives best in a rocky or gravelly soil.—Browne.

7. TRICHOMANOIDES. TRICHOMANES-LIKE.

*Trichomanes majus pinnis sinuatis subtus niveis.* Sloane, v. 1, p. 80.

Pp

80, t. 35, f. 1. Acrosticum 7.—*Simplex villosum, foliis lanceolato-ovatis crenatis et sub-auritis petiolatis minimis.* Browne, p. 105.

Pinnas sub-ovate, blunt, repand, hirsute underneath.

The leaves are about a foot long, with reddish-brown, shining, slender, footstalks. The pinnæ are sometimes opposite, sometimes alternate, very thick set near the top. The leaves are of an irregular figure, notched about the edges; green above and very white below, with a brown down on the margin. It is common in the middle mountains of Liguanea, seldom grows more than ten or twelve inches in height, and has the appearance of an *adiantum*.

The following have sub-pinnate or branched fronds:

8. PEDATA. FOOTED.

*Hemionitis foliis atrovirentibus maxime dissectis seu filix Gerani Robertiani folio.* Sloane, v. 1, p. 73. *Minor simplex monophyllus, atque lobatus, lobis profunde incisis, laciniis lanceolatis.* Browne, p. 90.

Fronds five-angled, trifoliate; pinnas pinnatifid, the lateral ones two-parted.

This little plant seldom rises above four or six inches from the ground; it is beautifully dissected, and of a very singular form; but varies much in its division and appearance.—Browne. This plant has also the appearance of an *adiantum*; and the leaves are of a dark green colour above.

9. CAUDATA. TAILED.

*Filix femina seu ramosa major, pinnulis angustissimis rarissimisque.* Sloane, v. 1, p. 101, t. 63. *Ramosus, fronde rariori lobata, lobis linearibus auritis quandoque subdivisis, terminalibus longioribus.* Browne, p. 91.

Fronds super-decompound; pinnas linear, the lowest pinnate-toothed at the base, the terminating ones very long.

This plant is very common in the mountains of Jamaica. It grows very thick in most open spots, and thrives best in a stiff clay.—Browne. It rises about five feet high with a strong stalk, cornered; as big as ones finger, of a black colour at bottom and reddish green above; having branches sometimes opposite, sometimes alternate; on which come the twigs beset with pinnæ, very narrow, having a large space between each.—Sloane.

10. MUTILATA. MANGLED.

*Ramosus, foliis linearibus per pinnas alatas.* Browne, p. 91.

Fronds decompound, leaflets pinnate, the lowest semi-pinnatifid, the terminating one and those of the base very long.

This plant grows like the foregoing, but never rises so high; it loves an open gravelly soil, and is very common in the lower hills.—Browne.

11. BIAURITA. TWO-EARED.

*Simplex, pinnis longis in lobos angustos falcatos profunde sectis, infima utrinque geminata.* Browne, p. 90.

Fronds

Fronds pinnate, pinnae pinnatifid, the lowest two-parted.

This plant grows in the cooler mountains of New Liguanea, it rises commonly to the height of two feet and a half, and is easily distinguished by the regular division of its lower ribs.—*Browne*.

## 12. HETEROPIHYLLA.

*Ruta muriariae accedens filix minor non ramosa, pinnulis subrotundis profunde scissis.* Sloane, v. 1, p. 92. *Sesquipedalis ramosus; foliis minoribus oblongis serratis.* Browne, p. 91.

Fronds bipinnate, pinnae ovate-oblong, serrate, blunt, the fertile ones quite entire.

This is a very elegant little species, it grows commonly in moist and shady places, and rises to the height of sixteen or eighteen inches; it is pretty much divided, and the leaves, when young, are serrated; but, as it begins to seed, the margin reflects, and none of these are seen. It is very common about the Cascade in St. Ann's.—*Browne*.

This has been confounded with *osmunda crispa* of Linneus, but ought to be restored to this genus. The fructifications are at first in an interrupted line about the edge, but, when matured, become confluent, and are covered by the reflex margin.—*Sw.*

The stalks are of a dark green colour, having twigs opposite below, alternate above; the leaflets are set alternately, about nine pair, with an odd one, they stand on short footstalks, are roundish, and deeply cut on the edges.—*Sloane*.

## 13. ACULEATA. PRICKLY.

Leaflets doubly pinnatifid; divisions broad lanceolate; segments serrate, the terminal one elongated; trunk arboreous, and stem prickly.

See FERN.

## FIDDLEWOOD.

## CITHAREXYLUM.

CL. 14, OR. 2.—*Didynamia angiospermia.* NAT. OR.—*Personata.*

This name is derived from two Greek words signifying a harp and wood.

GEN. CHAR.—Calyx a one-leafed bell-form perianth, five-toothed, acute, permanent; corolla one-petaled, funnel, wheel-form; tube twice as long as the perianth, thicker at the top; border five-parted, two-lipped; segments villose above, oblong, truncate, flat, very spreading; the stamens are four filaments, with the rudiment of a fifth from the middle of the tube, filiform, two of them somewhat longer; anthers oblong, twin, erect; the pistil has a roundish germ, a filiform style, the length of the stamens; stigma obtuse-headed; pericarp a roundish berry, somewhat compressed, one-celled; seeds two, ovate, two-celled, convex on one side, concave on the other, emarginate at the end. Three species are natives of Jamaica, one is known by the name of *old woman's bitter*.

P p 2

1. CAUDATUM.

## 1. CAUDATUM. TAILED.

*Fruticosum, foliis subellipticis, petiolis pedatis, calicibus truncatis, spicis terminalibus longioribus.* Browne, p. 265, t. 28, f. 2.

Branches round; calyxes truncate.

This is called *oval-leaved* or *long-spiked* fiddlewood. The leaves are elliptic, emarginate, obtuse, entire; racemes erect; calyx slightly toothed. Browne says it is but a shrub, which seldom grows above ten or twelve feet in height, and bears a great number of small berries, disposed on divided spikes at the extremities of the branches, and that it is pretty common about Sixteen-Mile-Walk.

## 2. MELANOCARDIUM. BLACK-HEART.

*Berberis fructu arbor maxima baccifera racemosa, foliis integris obtusis, flore albo pentapetalo, odoratissimo, fructu nigro monopyreno.* Sloane, v. 2, p. 99, t. 206, f. 3, 4. *Foliis rugosis ovatis oppositis, petiolis geniculatis, racemis terminalibus, calicibus quadrifidis.*—Browne, p. 265.

Branches quadrangular; racemes terminating, compound; flowers four-stamened.

This tree grows chiefly in the lowlands and savannas, where it is frequently observed; to rise to the height of forty or fifty feet; and is generally looked upon as one of the hardest and best timber trees in the island. The body grows to a considerable thickness, and is covered with a thick whitish bark, which, like the grain of the wood, winds in a loose spiral form. The leaves are pretty long, rugged, and slightly serrated; and the blossoms disposed in bunches, at the extremities of the branches. The berries are small, and of a yellow colour; they contain each two hemispheric shells, that contain the seeds: the nuts or *nuculi* of these may be easily parted into two lobes or segments. The berries are sometimes eat by the negroes.—*Browne*.

Sloane supposes that a sweet smelling essence might be made from the flower of this tree. The wood is very durable, even when exposed to the weather or put into the ground, and therefore makes excellent posts: it grows plentifully in most of the lower mountains. From its durable quality the French gave it the name of *fidelle* wood, which we have corrupted to *fiddle*. A dye of a beautiful straw, yellow, or orange colour, for masons' work, is made of this wood as follows:—Take of strong white lime a sufficient quantity to finish the work intended, mix it with water, as for white wash, put it in casks or other utensils, then add thereto the heart of black fiddlewood, finely chipt, or the shavings, in such quantity as will produce the colour required; let it remain in the lime and water three or four days, repeatedly stirring it, so as to extract the dye—which can be reduced by an additional quantity of water, or strengthened by more chips and lime, at pleasure. This will be found a never failing method, and a far superior colour to any other material whatever now in use.

Browne takes notice of two other kinds of fiddlewood, which he thinks may be only varieties, viz.:

## 1. WHITE FIDDLEWOOD.

*Erectum, foliis oblongis, cortice levi, fructibus sparsis.* Browne, p. 265.

This.

This tree is most frequent in the more hilly inland parts of the island; it grows to a considerable size, and is commonly looked upon as a good timber tree; but should be used where it may not be exposed to the weather. I have seen many of these trees in the mountains of St. Elizabeth; but did not observe any blossom, and have only ranged them in this class from the appearance of their berries, which agree in every respect with those of the other species.—*Browne*.

## 2. GREEN-HEART FIDDLEWOOD.

*Foliis venosis ovatis alternis, cortice scabra longitudinaliter fissâ.*—

*Browne, p. 265.*

This tree is frequent in the woods about the Ferry, where it grows to a very considerable size, and is generally looked upon as one of the best timber trees in the island. I have not seen any of its fruit or flowers, therefore could not class it to any certainty, but have placed it here from its outward appearance, and the grain and texture of its wood.—*Browne*.

*See OLD WOMAN'S BITTER.*

## FIG-TREE.

## FICUS.

CL. 23, OR. 3.—*Polygamia triœcia.* NAT. OR.—*Scabridæ.*

**GEN. CHAR.**—Common calyx obovate, very large, fleshy, concave; closed with very many semi-lanceolate, sharp, serrate, inflex, scales; the inner surface is covered with floscules, the outer of which, or those that are nearer to the edge of the calyx, are male: these are fewer in number; the rest lower down are female, and more numerous. Male, each on its proper peduncle, calyx, perianth proper three-parted, erect, divisions lanceolate, erect, equal; there is no corolla; the stamens are three bristle-shaped filaments, length of the calyx, with twin anthers; the pistil a caducous intorted rudiment. The female, also each on its proper peduncle, calyx, perianth proper five-parted, divisions lanceolate-acuminate, straight, nearly equal; no corolla; the pistil has an oval germ, the size of the proper perianth; style subulate, inflex, coming out from the germ at the side of the tip; stigmas two, acuminate, reflex, one shorter than the other; there is no pericarp; calyx oblique, containing in its bosom a seed, which is single, roundish, compressed. Two species of this genus are natives of Jamaica, and the *carica*, or common fig, has also been introduced.

### 1. CARICA. FIG.

Leaves palmate, sub-trilobate, rugged underneath; fruits smooth, pear-shaped, umbilicated.

The *carica*, or common fig, has been long ago introduced, and thrives very luxuriantly in the lowlands, bears well, and produces so delicious a fruit, that it is probably not excelled in those countries where it is indigenous. It is generally propagated by suckers, but Mr. Miller recommends its propagation by layers; the tree should hardly ever be pruned, or but as little as possible; but, if it grows too luxuriant, the ground should be dug up one side of it, and, about two or three feet from the bottom of the trunk, all the roots should be cut away (big and little), and the hole filled up with rubbish.

bish of a dry barren kind; which, if the like superfluous growth should continue, may be tried on the other side the following year. But, if the tree does not bear thick, or the fruit be observed not to come to perfection upon it, the top stems should be cut off, so soon as they and the fruit begin to appear in the spring.—*Browne*.

The fig has large palmated or hand-shaped leaves, and there are a number of varieties.

There is a remarkable circumstance in the history of the fig-tree, which, for many ages, was ænigmatical, namely, the *caprification*, as it is called, which is particularly worthy of attention, not only as a singular phenomenon of itself, but as it has furnished one of the most convincing proofs of the reality of the sexes of the plants. In brief, it is this: The flowers of the fig-tree are situated within a pulpy receptacle, which we call the fig or fruit: of these receptacles, in the wild fig-tree, some have male flowers only, and others have male and female, both distinct; though placed in the same receptacle. In the cultivated fig, these are found to contain only female flowers; which are fecundated by means of a kind of gnat bred in the fruit of the wild fig trees, which pierces that of the cultivated, in order to deposit its eggs within; at the same time diffusing within the receptacle the farina of the male flowers. Without this operation the fruit may ripen, but no effective seeds are produced: hence the garden fig can only be propagated by layers and cuttings, in those countries where the wild fig is not known. The process of thus ripening the fruit, in the oriental countries, is not left to nature, but is managed with great art, and different degrees of dexterity, so as to reward the skilful husbandman, who conveys the gnats at a proper time, fixing them at the ends of the branches, with a much larger increase of fruit than would otherwise be produced. A tree of the same size where caprification is not practised may produce twenty-five pounds of fruit, but, by that art, brings ten times the quantity.

Figs are employed as emollient cataplasms and pectoral decoctions. The best are those which come from Turkey. In the south of France they are prepared as follows: The fruit is first dipped in scalding hot lye, made of the ashes of the fig-tree, and then dried in the sun. Hence these figs stick to the hands, and scour them like lixivial salts; and, for the same reason, they excite to stool without griping. They are moderately nutritive, grateful to the stomach, and easier to digest than any other of the sweet fruits.

## 2. VIRGENS. GREEN.

*Ficus Indica maxima, folio oblongo funiculis, e. summis ramis demissis radices agentibus se propagans, fructu minore sphaerico sanguineo.* Sloane, v. 2, p. 140, t. 223. *Arborea assurgens utrinque brachiata, foliis ovatis, ramis appendiculas tenues flexiles dependentes demittentibus.* Browne, p. 110.

Leaves oblong, acuminate, quite entire, smooth and even, narrowed and rounded at the base.

This large tree has roots running a great way round it, winding and twining on the surface of the ground, with a light grey bark, and growing from large spurs, like the cotton tree. The wood is soft, but makes tolerable good boards for flooring, doors, tables, &c. The trunk is divided at the top into many branches, spreading on every hand, having leaves on inch long footstalks, eight inches long, and half as broad in the middle,



middle, of a dark green colour. The fruit is spherical, and full of red grains or seeds. The whole tree and fruit, in every part, when broken, is milky. The fruit is much coveted by wild pigeons.—*Sloane*. *Sloane* describes five kinds of this tree. His three first are thought to be the same, or at most varieties of this species, as well as *Browne's* second and fifth kinds.

This monstrous tree is at first but a weakly climbing plant, that raises itself by the help of some adjoining trunk, rock, or tree; and continues to shoot some slender flexile radicles, or appendixes, that embrace the supporter, and grow gradually downwards, as the stem increases: this at length gains the summit, and begins to shoot both branches and radicles, or appendixes, more luxuriantly; these in time reach the ground, throw out many smaller arms, take root, and become so many stems and supporters to the parent plant; which now begins to enlarge, to throw out new branches and appendixes, and to form a trunk from the summit of its supporter; which still continues in the centre of the first radicles, interwoven in their descent, and at length augmented and connected gradually into a common mass or body about the borrowed foundation; which, if a vegetable, soon begins to decay, and at length is wholly lost within the luxuriant trunk it supported. This tree is very common in both the East and West Indies, and a poor despicable creeper in its tender state: it seldom fails when it meets with a proper support, and generally makes use of all the arts of true policy to perfect its growth; but, when once complete, it will live a long time, for it throws out many new appendixes for every one that chances to fail, and each more useful, as they support the top more immediately: nor is this all, for the roots frequently emit new shoots, and these rise by the parent prop into other trees; and thus one plant is sometimes observed to raise a whole grove.—*Browne*.

### 3. AMERICANA. AMERICAN.

*Ficus Indica folio oblongo, obtuso-fructu minore pallide luteo spherico.*  
*Sloane*, v. 2, p. 140. *Arborescens folio oblongo ovatis, baccis sub-  
 verrucosis.* *Browne*, p.

Leaves ovate, oblong, veined, quite entire; fruits axillary, peduncled, clustered.

This tree has a trunk as big as ones thigh, covered with a white or ash-coloured bark, rising about twenty feet high, with branches on every hand, with leaves placed irregularly at their ends, two inches long and one broad, standing on half inch long footstalks. The fruit stands on short footstalks, is round, bigger than a cherry, of a pale yellow colour, having within a small thin pulp, and a great many round brown seeds. All parts of the tree are milky. It grew near the Río Cobre.—*Sloane*. This appears to be *Sloane's* fourth and fifth, and *Browne's* third and fourth kinds.

*Fig-Trees*.—Besides the delicious Spanish fig, we have a sort of wild figs, growing spontaneously in most parts of Jamaica, whose trees are very large and spreading: Sir H. *Sloane* calls them *ficus Indica maxima*, and makes five sorts of them. They differ a little in shape, bigness of fruit, and largeness of leaf; but otherwise little or no difference, all having a milky juice, which is dangerous if it flies into the eyes: The juice is thickened, by the sun and art, into a gum like bird-lime. It is rare to see any of these trees grow up straight of themselves, but have generally supporters; for, growing by the side of another, they clasp round it, and when it hath got some height,

It then puts out little branches like a withe, which grow downwards to the ground, where they take root, growing bigger and stronger like stilts, and then spreading on the top, they overcome and destroy its first supporter. There is both white and red, but both very soft, like deal, of which the negroes make bowls, trays, and spoons.—Its fruit is about the bigness of an apricot. They are as large as the cotton-tree, but seldom straight. That which hath a reddish wood, I am of opinion, the *balsam capivi* is got from, or at least a balsam may be got as good.—*Barham*, p. 59.

The *ficus tinctoria*, a native of the Society islands, called *mattee*, is in the Hortus Eastensis, it was brought to Jamaica in his Majesty's ship Providence, and is used as a dye wood.

## FINGRIGO OR COCKSPUR.

## PISONIA.

CL. 23, OR. 2.—*Polygamia dioecia*.NAT. OR.—*Nyctagines*.

This genus was named in honour of William Piso, a physician of Amsterdam, author of a Natural History of Brasil.

GEN. CHAR.—Male calyx scarcely any; corolla one-petaled, bell-shaped, five-cleft, segments acute, patulous; the stamens are five, six, or seven, awl-shaped filaments, with roundish twin anthers; the pistil has an oblong germ, a short style, and a pencil-shaped stigma. The female calyx and corolla as in the male; the pistil has an oblong germ; a style simple, cylindrical, longer than the corolla, erect, with bifid stigma; the pericarp is an oval berry, often five-cornered, valveless, one-celled; seed single, smooth, oblong. Swartz classes this genus *heptandria monogynia*. Two species are natives of Jamaica.

## 1. ACULEATA. PRICKLY.

*Paliuro affinis arbor spinosa, flore racemoso herbaceo pentapetaloides, fructu sicco nudo cannulato-lappaceo.* Sloane, v. 2, p. 25, t. 167, f. 3, 4. *Assurgens, sarmento valido, foliis ovatis utrinque productis, spinis validis recurvis, racemis lateralibus.* Browne, p. 358.

Spines axillary, spreading very much.

This plant rises eight or nine feet high, with reclining branches, and requiring support, from neighbouring trees, which it turns round. The branches, twigs, and spines, are always opposite; the latter awl-shaped, acuminate, axillary, perpendicular to the branch, strong, recurved at the points. Both twigs and prickles make a cross with those immediately under them. This tree is often bare of leaves, and the flowers shoot first on corymbed racemes, branched, axillary, and terminating, not reaching beyond the leaves, but, when in fruit, much elongated. The flowers are small, greenish-yellow, numerous, supported by three awl-shaped bractes, if the flower terminates the branchlet of the raceme, but with two only if it is placed at the side of it, the raceme itself then serving for the third. To the flower succeeds an oblong, cannulated, rough, naked, brown, large, seed, sticking to any thing by means of crooked points. After the fruit is perfected come the leaves, at the ends of the twigs, oval, acute, quite entire, smooth, petioled, about two inches and a half long and one broad, of a dark green

green colour. Dr. Martyn gives the following description, in the Gardeners Dictionary, of the different appearance of the male and female plants raised from the same seeds: "The male plants have stalks as thick as ones arm, which rise ten or twelve feet high; the bark is of a dark brown colour, and smooth; these send out many branches by pairs opposite, which are much stronger than those of the female, and do not hang about so loose: they are garnished with obovate stiff leaves, an inch and a half long, and an inch and a quarter broad, standing opposite on short footstalks. From the side of the branches come out short spurs, having each two pairs of small leaves at the bottom, and from the top comes out the peduncle, which is slender, about half an inch long, dividing at the top into three; each of these sustain a small corymb of herbaceous yellow flowers, each having five stamens, standing out beyond the petal, terminated by obtuse anthers.

"The stalks of the female plants, not being so strong as those of the male, require support. These rise eighteen or twenty feet high, sending out slender weak branches, opposite, which are armed with short, strong, hooked, spines, and have small oval leaves, about an inch and three quarters broad; these stand opposite on the larger branches, but on the smaller they are alternate, and have short footstalks. The flowers are produced in small bunches at the end of the branches, sitting upon the germ; they are shaped like those of the male, but have no stamens; in the centre is situated a cylindrical style, crowned with five spreading stigmas. The germs afterwards turn to a channelled, five-cornered, glutinous, capsule, armed with small crooked spines, each containing one oblong, oval, smooth, seed."

This plant is frequent in all the sugar islands; it is a strong withy climber, whose main trunk is sometimes no less than five or six inches in diameter; but this is generally in the woods, where it thrives best, and is commonly supported by the help of some of the neighbouring trees. The flowers are very various; they are sometimes hermaphrodite on every branch, sometimes male in one branch, and female in another; and sometimes male, female, and hermaphrodite, on the different parts of the same plant; but most commonly they are all of one kind. The decoction of the roots, with those of the lime-tree, Sloane says, are thought good for gonorrhœa; and so it is if the root is ground and mixed with lime juice until it is thickened therewith. The wood, being tough and flexible, is frequently used to make hoops. There is another small prickly plant called *fingrigo*, the *numosa cinerea*, described under the name *sensitive plants*.

*Fingrigo*.—I believe some negro gave the name, for it is very full of hooked prickles, like cock spurs; and some call the plant so, which is well known in Jamaica. The blossom smells as sweet as the English May. The seeds, when dry, stick fast to any thing they touch, like burs: I have seen ground-doves and pea-doves, that covet to eat the seeds, stick so fast about them that they could not make use of their wings, so that you might take them up in your hands. The root of this plant negroes use in venereal cases.—*Barham*, p. 60.

E. NIGRICANS. BLACK.

Unarmed; leaves ovate-acuminate; flowers cymed, erect; fruits berried.

Sturtz refers the *pisonia inermis* of Jacquin to this species, which he found in Jamaica.

maica. Jacquin describes it as a small tree without thorns, upright, twelve and sometimes twenty feet in height, with a trunk five inches in diameter. When it grows in thick coppices it acquires an inelegant habit, not much unlike the first species. Leaves oblong-lanceolate, acuminate; racemes like those of the prickly sort, but not elongated when in fruit; continuing after the fruit is fallen, and then becoming red; bractes the same. Flowers small, greenish yellow, having a slight odour; berry black, soft, containing a whitish pulp, which is often wanting, being probably eaten by insects, for it is always found in the unripe fruit.

FIT-WEED—See ERYNGO.

### FIVE-FINGER.

### ARUM.

CL. 20, OR. 9.—*Gynandria polyandria.*

NAT. OR.—*Piperitæ.*

GEN. CHAR.—See Coccoes, p. 211.

#### AURITUM.

#### EARED.

*Arum maximum scandens geniculatum et trifoliatum foliis, ad basim auriculatis.* Sloane, v. 1, p. 169. *Scandens triphyllum, foliis exterioribus auritis, petiolis vaginantibus.* Browne, p. 331.

Radicant; leaves ternate, those at the side one-lobed.

This plant is very common in Jamaica, running upon trees, and is very remarkable, as being the only species of *arum*, in this island, furnished with compound leaves.—The stalk is better than an inch in diameter when full grown, thickly jointed, and full of a milky clammy juice; as are all parts of the plant. From the joints proceed clavicles, or roots, which adhere strongly to any tree it climbs upon, by which it reaches to the top of the highest trees. The leaves are produced towards the top, their footstalks encompassing the stalk, when they drop off leaving those marks which distinguish the joints. They are longer than the leaf, sheathed within a few inches of it, where they become round. The leaf has three lobes in the young plant, but, as it acquires age and strength, throws forth ears from the outward leaves, until it has frequently seven divisions, the hinder ones appearing like spurs to the others. The uppermost or middle leaf is by far the largest, being frequently a foot long and half as broad; the others diminishing as they recede from it, the smallest not exceeding four inches long and two broad. The leaves are smooth and milky, dark green above, and paler below.

A decoction of the leaves, stems, or roots, of this plant is sometimes used as a substitute for sarsaparilla in venereal complaints. The stalks and leaves, boiled with salt and other hog-meat, are used in many places for the purpose of fattening hogs.

### FLEA-BANES.

### CONYZA.

CL. 19, OR. 2.—*Syngenesia polygamia superflua.*

NAT. OR.—*Compositæ.*

GEN. CHAR.—Calyx common imbricate, roundish, squarrose; scales acute, the outer somewhat spreading; corolla compound, tubulose; corollets hermaphrodite, numerous.

monous, tubular in the disk; females apetalous, roundish in the circuit; *proper*—of the hermaphrodite, funnel-form, border five-cleft, patulous—of the females, funnel-form, border three-cleft; stamens in the hermaphrodites, five capillary very short filaments, with cylindric tubular anthers; the pistil in the hermaphrodites has an oblong germ, a filiform style, the length of the stamens, and a two-cleft stigma: In the females the germ is oblong, style filiform, length of the hermaphrodite, more slender; stigmas two, very slender; there is no pericarp, calyx converging; the seeds to the hermaphrodites solitary, oblong, down simple; to the females solitary, oblong, simple; receptacle naked, flat. Four species are natives of Jamaica.

1. ARBORESCENS. TREE.

*Conyza fruticosa flore pallide purpureo, capitulis e lateribus ramulorum spicatis exeuntibus.* Sloane, v. 1, p. 257. Eupatorium f.—*Erectum hirsutum, foliis oblongis rugosis; floribus spicatis, per ramos terminalis declinantes uno versu dispositis.* Browne, p. 313.

Leaves ovate, quite entire, acute, tomentose underneath; spikes recurved, one-ranked; bractes reflex.

This is a shrub, with a depressed rugged stem, rising four or five feet, with divaricate, sub-divided, branches, bent down, diverging, villose, with a blackish shagreeness. Leaves petioled, alternate, broad-lanceolate, nerved, wrinkled, pubescent, (like sage leaves,) an inch and a half long and half an inch broad, whitest on the under side. Racemes terminating and axillary, erect, flowers sub-sessile, alternate, pale purple; calycine scales pressed close, pubescent; corolla uniform; twelve hermaphrodite corollets in the circuit, a little higher than the others, giving the flower a radiate appearance.—Sw.

This plant, the erect *eupatorium* or *hemp agrimony*, grows chiefly in the lowlands. The branches bend generally forwards, and bear their flowers in loose spikes along their extremities; where they are disposed in a gradual succession on the upper sides only.—Browne. Piso says, the bruised leaves are good against pains and inflammations of the eyes; and that the leaves and pappous seeds, because of their being aromatic, are good in baths.

2. VIRGATA. TWIGGY.

*Helichrysum caule alato, floribus spicatis.* Sloane, v. 1, p. 260, t. 152, f. 5. *Angustifolia subinsana, caule alato, spica multiplici; floribus inferioribus ternatis, mediis binatis, superioribus singulis.* Browne, p. 318.

Leaves decurrent, lanceolate, serrulate; stems wand-like; flowers spiked, in scattered heaps.

This has several straight stalks, rising two feet high, from the same root; it is pretty hairy. The leaves are set at about an inch distant from one another, having two little leaflets at their origin, set on an edged stalk; they are slightly indented, of a dark green colour above, and woolly or white below, having an eminent nerve running longways. The flower branches are very long and slender, and disposed in the form of spikes at the top. The flowers are sessile, and stand sometimes singly and sometimes three or four together. It grows in dry savannas.

*Helichrysum*, or golden cudweed, golden tufts, or locks.—It hath a woolly stalk, with many long narrow leaves, green on the upper side, and hoary and woolly on the under side; the flowers grow on the tops of the stalks, in tufts, without any foot-stalk; the outward leaves, or *capsula*, are like silver scales, inclosing the flowers, of a pale-purple colour, with yellow thrums as in daisies; then follow many pappous seeds, as in others of the kind. The whole plant is drying and restraining, which makes it good against all sorts of fluxes and catarrhs. It is good in quinsies, and all ulcers.—*Barham*, p. 73.

## 3. PURPURASCENS. PURPLE.

*Conyza major odorata, seu baccharis, floribus purpureis nudis.* Sloane, v. 1, p. 258, t. 152, f. 1. *Odorata minor erecta, purpurascens, corymbosa; foliis ovatis, villosa.* Browne, p. 318.

Leaves ovate-lanceolate, serrate, sub-tomentose; stem sub-herbaceous, simple at bottom, corymbd at top; flowers ovate.

The stem of this plant, which rises sixteen or twenty inches in height, is purple, generally pretty simple below the middle, but as it rises throws out a good many branches. The lower ones have pear-shaped leaves, three inches long and one broad, on short petioles, rough, and notched about the edges. The leaves on the upper branches are much narrower, and end in acute points. The flowers are purple, and produced in round bunches at the ends of the branches. Browne observes, that the smell of this plant is agreeable to most people, and that it is frequently kept among clothes to preserve them from moths and other vermin. It is common in all low marshy lands.

## 4. RIGIDA. RIGID.

Leaves petioled, obovate, entire, rugged, veined underneath; spikes flexuose; flowers in pairs, all directed the same way.—*Sw.*

## FLEA-WORT.

## CINERARIA.

CL. 19, OR. 2.—*Syngenesia polygamia superflua.* NAT. OR.—*Compositæ.*

This name is derived from the Latin word *cinis*, as most of the species are gray or ash-coloured.

GEN. CHAR.—Calyx common, simple, many-leaved, leaflets equal; corolla compound, radiated; corollets hermaphrodite, equal, numerous in the disk; the stamens in the hermaphrodite, five filaments, with cylindric tubulous anthers, five-cleft at top; the pistil in the hermaphrodite has an oblong germ, filiform style, two stigmas; female germ oblong, style filiform, stigmas two; there is no pericarp, the calyx unchanged; seeds solitary, linear, quadrangular; pappus hairy, simple, copious; the receptacle naked, flattish. Two species of this genus was discovered in Jamaica by Swartz.

## 1. GLABRA. SMOOTH.

Flowers corymbd; calyxes cylindric; leaves oblong, acute, somewhat toothed, nerveless, smooth on both sides, and a little succulent; stem shrubby.

## 2. DISCOLOR.

## 2. DISCOLOR. PARTY-COLOURED.

Flowers corymbed; leaves oblong, lanceolate-acuminate, somewhat tooth-  
 letted, smooth, beneath white tomentose; stem shrubby.

FORBIDDEN FRUIT—See SHADDOCK.

## FORK FERN.

## ACROSTICHUM.

CL. 24, OR. 1.—*Cryptogamia filices.*

GEN. CHAR.—The fructifications cover the whole under surface of the frond.—  
 Eighteen species have been discovered in Jamaica.

*With simple divided fronds:*

## 1. FERRUGINEUM. IRON.

Fronds pinnatifid; pinnae linear-acute, spreading, quite entire, connate;  
 stipe smooth.

## 2. POLYPODIOIDES. POLYPODIUM-LIKE.

*Polypodium minus pinnulis raris subtus cineris.* Sloane, v. 1, p. 79.

*Acaule fronde pinnatifa ad vernem divisa, lobis linearibus basi ad-*  
*natis.* Browne, p. 105.

Fronds pinnatifid; pinnae linear-obtuse, quite entire, spreading, crowned;  
 stipe scaly.

Browne calls this the smaller *acrosticum*, with narrow lobed foliage, commonly found  
 in low, cool, and shady places. It rises in tufts, and seldom exceeds ten or twelve  
 inches in length. The bark of the frond is hoary and scaly, and has the fructifications  
 more or less confluent, though, being sometimes distinct, this has the appearance of a  
*polypodium*. The footstalks are brownish, and the whole leaf and footstalk about four  
 inches long, of a yellowish green colour above, whitish below.

*With pinnate fronds:*

## 3. AUREUM. GOLDEN.

*Lonchitis palustris maxima.* Sloane, v. 1, p. 76. *Maximum uligi-*  
*nosum simplex, costa crassiori, foliis oblongis distinctis integris.*—  
 Browne, p. 105.

Pinnae alternate, tongue-shaped, quite entire, smooth.

Stipes or footstalks in bundles from the same root, which with the leaves rise nine  
 feet high, they are the thickness of the little finger. The rib of the leaf is greenish,  
 cornered, eminent, irregularly shaped, having at every inch and a half distance the  
 pinnae set alternately on small pedicels, about twenty in number; each pinna about  
 a foot long and three inches broad in the middle, where broadest, being narrow at the  
 beginning, and ending obtusely. The leaf is green, smooth, sometimes half covered  
 over with rusty coloured moss, in which lies the seed. It grows in marshes near the  
 Black River going to Old Harbour, and by Salt River near Passage Fort. It is used  
 for thatch, and the decoction of the root stops dysenteries; by being drank; it is also  
 excellent

excellent in obstructions of the spleen. A salt made of the leaves is an excellent remedy against ulcers and carious bones, being drying.—*Sloane*.

4. RUFUM. REDDISH.

*Filix minor, rufa lanugine tota obducta in pinnas tantum divisa, raras, non crenatas, subrotundas.* Sloane, v. 1, p. 87, t. 45, f. 1.  
*Simplex villosum, foliis lanceolata-ovatis levissime crenatis, lineis fructificationis densissime sitis.* Browne, p. 93.

Pinnas oblong-ovate, quite entire, pubescent.

This grows eighteen or twenty inches in height; stalk round, covered with ferruginous hair, leafy almost from the root; each pinna about an inch long, and an inch distant from each other, on small footstalks, they are about half an inch broad at the base, whence they decrease to the end, which is round, all covered over with a rusty woolly hair.—*Sloane*. Browne calls it the simple hairy *asplenium*, which seems to like a sandy soil; he found it in Liguanea.

5. SORBIFOLIUM. SORBUS-LEAVED.

*Filix major scandens in pinnas tantum divisa oblongas latasque non crenatas.* Sloane, v. 1, p. 83, t. 38.

Pinnas oblong-ovate, entire, serrate, acute; stipes scaly.

This has a crooked stalk, of a dark brown colour, cornered, sometimes smooth, at other times covered with a ferruginous hairy moss, as big as the little finger, sending out on each side many inch long clavicles or roots, sticking to the barks of trees, by which it rises twenty or thirty feet. These stalks, rooting all the way, send out leaves at about two inches distance, a foot and a half long, having alternate pinnas, set on the middle rib at half an inch distance from one another, they are three inches long and three quarters of an inch broad in the middle, where broadest; they are thin, smooth, and of a pale green colour. The juice, mixed with oil, ginger, and pepper, is said to cure the choleric head-ach, when anointed with it.—*Sloane*.

6. MARGINATUM. MARGINED.

*Filix major in pinnas tantum divisa, oblongas, angustasque, non crenatas.* Sloane, v. 1, p. 84, t. 40.

Pinnas oblong, quite entire, waved, acuminate; stipe naked.

This is thought to be the same with *pteris grandiflora*—see Female Ferns, p. 289. Sloane describes it as follows:

Stalk sometimes blackish, sometimes brown, rising two feet high, and having pinnae at about nine inches from the ground, sometimes opposite, and sometimes alternate, at about three quarters of an inch distance from each other, four inches long and half an inch broad in the middle, ending in a narrow point; dark green above, wholly covered with ferruginous moss below. It grew very plentifully on the Rio d'Oro, in St. Thomas in the Vale, and in St. Mary's.—*Sloane*.

7. SANCTUM. HOLY.

*Filicula non ramosa minima, surculis crebris, pinnulis angustissimis, raris.* Sloane, v. 1, p. 91, t. 49, f. 2. *Erectum minimum simplex, foliolis angustis crenatis vel lobatis.* Browne, p. 105.

Fronds



Fronds lanceolate; pinnas linear-lanceolate, gash-serrate, the lower serratures largest.

This plant Swartz thought a *polypodium*, from the seed being arranged in distinct round spots. It does not grow above five or six inches high, having short twigs, set alternately, on which grew the pinnas. It grows in the inland parts by shady rivulets.

8. TRIFOLIATUM. THREE-LEAVED.

*Phyllitis ramosa trifida*. Sloane, v. 1, p. 88, t. 45, f. 2. *Simplex, foliis lanceolatis irregulariter dispositis, superioribus singularibus, inferioribus geminatis vel ternatis*. Browne, p.

Leaves ternate, lanceolate.

This, from a blackish tuberous root, sends up five or six stalks about a foot high, Browne says two or three feet; the stalks are of a reddish colour, and cornered; the pinnae are set opposite to one another, three for the most part on a common reddish footstalk, the middle one the longest, about an inch and a half long and a quarter broad in the middle, where broadest, smooth, of a yellowish green colour, with reddish ribs; the bark of the frond is entirely covered with ferruginous dust. It grows chiefly in the mountains, and loves a moist rich soil; and is commonly found by the sides of rivulets.—Sloane & Browne.

With bipinnate fronds:

9. EBENEUM. EBONY.

*Filix non ramosa minima, caule nigro, surculis raris, pinnulis angustis, raris, brevibus, acutis subtus niveis*. Sloane, v. 1, p. 92, t. 53, f. 1, and t. 7, f. 1. *Fuscum simpliciter pinnatum, foliis parvis tota basi adnatis, inferioribus distinctis remotis hastatis auratis vel sublobatis, superioribus acuminatis contiguis integris*.—Browne, p. 106.

Pinnae sessile, oblong, sinuate, the uppermost shortest and quite entire.

Sloane and Browne made this a distinct plant. Swartz thought it only a young plant of the following species; which Sloane indeed observes it much resembled, but was four times smaller.

10. CALOMELANOS. FINE-BLACK.

*Filix non ramosa major, caule nigro, surculis raris, pinnulis angustis, raris, longis, dentatis*. Sloane, v. 1, p. 92, t. 30, f. 1.—*Erectum ramosum, caule et ramis atro-nitentibus, fronde divisa*.—Browne, p. 107.

Pinnae alternate, lanceolate, acuminate, pinnatifid.

Browne calls this the black stalked *acrosticum*, from the colour of its stem. The pinnae are indented on the edges. It grows in moist, cool, shady places, in the lower lands, with pretty much divided branches, rising to the height of twenty or thirty inches. The leaves are minutely divided, and of a silver colour underneath. The whole plant has much the appearance of a species of maiden hair.

11. SIMPLEX. SIMPLE.

Fronds entire, smooth, petioled; the barren ones lanceolate-acuminate, the fertile ones linear-lanceolate.—Sw.

Fronds

## 12. PETIOLATUM. PETIOLED.

Fronds entire, smooth, petioled; the barren ones linear-lanceolate, the fertile ones linear.—Sw.

## 13. LATIFOLIUM. BROAD-LEAVED.

*Acaule, folia oblongo integro superne nitido petiolato.* Browne, p. 104.

Fronds petioled, broad-lanceolate, very smooth, entire, margined; the fruit-bearing ones ovate-lanceolate; shoots creeping.

Browne calls this the leaf *acrosticum*, and says it is found in the cooler mountains of New Liguanea; it grows upon the rocks, and rises in tufts from a spreading fibrous root; but seldom exceeds ten or twelve inches in length, and is every where surrounded with a thin membranous margin.—Browne.

## 14. VILLOSUM. HAIRY.

Fronds broad-lanceolate, somewhat crenulate, villous on both sides.—Sw.

## 15. MUSCOSUM. MOSSY.

Fronds petioled, entire, scaly; the barren ones oblong-lanceolate, blunt; the fertile ones linear-lanceolate.—Sw.

## 16. SERRULATUM. SERRULATE.

Fronds linear, toothed, fruit-bearing at the tip; shoots very short, rooting.—Sw.

## 17. GRAMINOIDES. GRASS-LIKE.

Fronds naked, linear, sub-dichotomous, and fruit-bearing at the tip.—Sw.

## 18. SULPHUREUM. SULPHUR.

Fronds bi-pinnate, pinnae alternate-ovate, pinnatifid; leaflets retuse-serrate.—Sw.

See FERNS.

FOUR O'CLOCK FLOWER—See MARVEL OF PERU.

## FRENCH HONEYSUCKLE.

## HEDYSARUM.

CL. 17, OR. 4.—*Diadelphia decandria.* NAT. OR.—*Papilionaceæ.*

This generic name is derived from two Greek words signifying sweet ointment.

GEN. CHAR.—Calyx a one-leafed perianth, half five-cleft, clefts subulate, upright, permanent; corolla papilionaceous, streaked, banner reflex-compressed, ovate-oblong, emarginate, long; wings oblong, narrower than the other petals, straight; keel straight, compressed, broader outwardly, transversely blunt, from the base to the swelling part bifid; stamens diadelphous filaments, bent in at a right angle; anthers roundish, compressed; the pistil has a slender germ, compressed, linear; style subulate, bent in with the stamens; stigma very simple; the pericarp is a roundish legume, with compressed joints, two-valved, one-seeded; seed kidney-shaped, solitary. Twelve species are natives of Jamaica; all with ternate leaves, except the first, which has conjugate.

## 1. DIPHYLLUM.

## 1. DIPHYLLUM. TWO-LEAVED.

*Hedysarum minus diphyllum, flore luteo.* Sloane, v. 1, p. 185.—  
Herbaceum, procumbens; foliis geminatis; spicis foliolatis, terminatus. Browne, p. 301.

Leaves binate-petioled; bractes in pairs, ovate-acute, sessile.

The stems are herbaceous, of which it has three or four, trailing on the ground, they are filiform, round, smooth; leaves alternate, petioled, petioles stiff, horizontal, distant, round, smooth; leaflets on very short petioles, oblong, sharp, entire, nerved, smooth, pubescent underneath. Stipules opposite, on the side of the petioles at the base, obliquely ovate, acuminate. Peduncles axillary, terminating, longer than the leaves, upright, stiff, many-flowered; flowers alternate, on very short pedicels, between two opposite bractes, acuminate at both ends; corolla yellow or purple. Calyx unequal, the two hinder clefts converging, the two lateral ones smaller, rounded, the lowest sharp, longer; banner of the corolla roundish, scarcely opening, veined, purplish; wings smaller than the banner; keel bowed in, acuminate; legume a little longer than the bractes, upright, (crooked like a half moon.—Sloane); jointed, echinate, with one roundish flattened seed in each, inclosed in a semicircular joint.—Sw.

This plant is very common in all the dry savannas about Spanish Town and Old Harbour, shooting plentifully after rain. It seldom rises above sixteen inches, bearing numerous yellow flowers, in spikes, at the extremity of the branches. An apozem of this plant is said to be good in fevers.

## 2. ADSCENDENS. ASCENDING.

Leaves roundish, pubescent underneath; stem columnar; branches declined, ascending, hairy; racemes simple, erect, axillary.—Sw. Pr. 106.

## 3. SUPINUM. SUPINE.

*Hedysarum triphyllum fruticosum supinum, flore purpureo.* Sloane, v. 1, p. 185, t. 118, f. 2.

Leaves ovate, bluntish, hairy, villose underneath; stem branched, procumbent; racemes simple, erect, terminating.

Root long, small, woody; stems a foot long, lying along the ground, rough, round, woody. Leaves at unequal distances, on petioles half an inch long, each having three leaflets, pale underneath, the middle one longest. Flowers in spikes, purple. Legumes crooked, forming a semi-circle, brown; the joints united by so small an isthmus that, when they adhere by their roughness to clothes, they separate, whence the Portuguese name *erva d'amor*. Every joint contains one pale yellow seed. It grows almost every where in the woods and savannas. Piso says, the decoction of this plant is good in a cold flux of the belly, and that the smoke or fume from the leaves, received with a covered head, cures the head-ach. Barham says all sorts of *hedysarum*, especially the seeds, are bitter, and therefore good stomachics and expellers of poisons; they also, he says, open obstructions and kill worms.

## 4. CANUM. HOARY.

Leaves ovate acuminate, hoary underneath; stem columnar, branched, erect; racemes terminating, erect; legumes declined, rough with hairs.

St

Stem

Stem shrubby, about five feet high, dividing into several branches; the middle leaf much larger than the other two. The stalks are terminated by long spikes of small purple flowers, which are succeeded by narrow pods, straight on one side, but jointed on the other. Swartz made it *incanum*, which being the name of another species, this was shortened for the sake of distinction.

## 5. TRIGONUM. THREE-SIDED.

*Triphyllum, maximum, scandens; caule trigono, hirtis uncinatis murito; spicis amplis terminalibus.* Browne, p. 301.

Leaves ovate-acute, rough with hairs; stem climbing, three-sided; racemes very long, axillary; legumes writhed, bent in.

This plant is pretty frequent in Jamaica, and a native of the mountains; it is a climber, and raises itself generally to the top of the tallest trees in the wood. The stem is triangular, and every where beset with small hooked bristles, or rough hairs.—The leaves are oval, and much like those of the kidney-bean tribe; and all the branches terminate in so many large and beautiful flower-spikes. The plant is most common about Hope River.—*Browne*.

## 6. SCORPIURUS. SCORPION.

*Triphyllum, hirsutum, minus, repens; racemis strictis hirsutis.* Browne, p. 301.

Leaves oblong, hirsute underneath; stems procumbent, three-cornered; racemes axillary; legumes roundish, upright.

Browne calls this the *hare's foot* French honeysuckle; and says he found this rare and curious plant a little beyond Guy's Hill. It grew in tufts, and seldom rose above sixteen or seventeen inches from the root.

## 7. CANESCENS. WHITE.

Leaves scabrous underneath; stem hispid; flowers racemed, conjugate.

This is an upright hairy plant, with ovate leaflets; awl-shaped sub-cordate stipules, and white flowers.

## 8. TORTUOSUM. TWISTED.

*Hedysarum triphyllum fruticosum, flore purpureo, siliqua varie distorta.* Sloane, v. 1, p. 184, t. 116, f. 9.

This is pretty frequent in the inland parts, growing erect to the height of two feet and a half, or better. The stipules of the leaves are roundish and broad, and the leaves moderately large. Barham calls it *onobrychis*, or *cock's head*, and describes it as follows; "This has a woody brown-coloured stem, having several green rough branches, four feet high. The leaves come out on every side, without any order, three always together upon a stalk, smooth above, of a dark-green colour, and rough underneath; the tops are long spikes of flowers, papilionaceous, of a pale purple colour; after these follow several pods, slender, rough, jointed, and variously turned and distorted. The plant purgeth a little; for if an ounce of the dried leaves be put in a purging decoction, it furthereth the purging property, causing not only watery humours to be voided, but those that are tough and clammy; also, it helps to digest cold humours."—*Barham*, p. 125.

## 9. SPIRALE.

9. SPIRALE. SPIRAL.

Leaves ovate, obtuse, smooth; stem very much branched, with diffused branches; racemes loose, divaricate; legumes spirally twisted.

Stem woody, trailing, a foot and a half long, sending out several branches on each side. Leaflets small, pale green; flowers small, of a pale purplish colour. Legumes narrow, each joint four-cornered, containing a single, small, compressed, seed.

10. AXILLARE. AXILLARY.

*Triphyllum majus repens*; *scapis axillaribus, assurgentibus, inferne nudis, superne spicatis.* Browne, p. 301.

Leaves rhombed, roundish; stem creeping, rooting; petioles upright; scapes axillary, longer than the leaves.

This runs many feet from the main roots; but they commonly cast a few radical fibres from all the joints that touch the ground, which greatly forwards their luxuriant growth. The leaves are marked with some prominent veins on the under side, and seldom under an inch and half in length. Both the species are pretty common in the more shady hills of Jamaica.—*Browne.*

11. TRIFLORUM. THREE-FLOWERED.

Leaves ob-cordate; stems procumbent; peduncles one-flowered, seldom three together.

Roots simple, long; stems filiform, crowded, when magnified appearing three-cornered, sub-divided, pubescent. Leaves alternate; petioles short; stipules opposite, acuminate, membranaceous, at the base of the petioles; leaflets roundish, ob-cordate, or slightly emarginate, small, nerved, netted, smooth above, glaucous underneath.—Peduncles opposite to the petioles, simple, solitary, two or at most three together, the length of the petioles, filiform, one-flowered; flowers minute, scarlet. Calyx two-lipped; the three hinder segments linear, contiguous, sharper, the two in front distant lanceolate. Banner of the corolla roundish-cordate, spreading, reflex, pale; wings and keel shorter than the banner, approximating, scarlet. Legume small, peduncled, crenate in front, containing three or four seeds, which are roundish and minute. It wakes at ten o'clock in the morning, and sleeps at four in the afternoon.—*Sw.*

12. BARBATUM. BEARDED.

Racemes oblong, somewhat branched; legumes bent in; calyxes hairy.

Stem procumbent, from three to five inches in length, branched, round, somewhat shrubby at the base, even; branches procumbent, almost simple, short, round, pubescent. Leaves petioled; petioles alternate, thicker at the base, filiform, short, round, a little flattened, smooth; leaflets obovate, petioled, the middle one double the size of the two others, entire, somewhat glaucous above, hoary on the back. At the tips of the leaves are very short little bristles. Stipules opposite, at the base of the petioles, sessile, lanceolate, sharp. Flowers terminating in a sort of spike; peduncles long, two, approximating, filiform; the flowers nodding, pale blue. Calyx sub-bilabiate, the two upper segments approximating, the tips linear-hirsute; the three lower ones distant, parted to the base, lanceolate, hirsute, whence there is a broad hirsute spike; banner of the corolla spreading at top, roundish; wings lanceolate, blunt; keel ovate, bowed in, spreading. Legume lanceolate, bent variously, bowed in; joints

joints, roundish, smooth; seeds roundish, compressed. Native of Jamaica in the dry sandy parts.—Sw.

Besides the above indigenous species, the following exotics have been introduced, and are in the Hortus Eastensis: the *gyrans*, or moving plant; the *gangeticum*; the *triquetrum*; the *gramineum*; the *anobrychis*, which is called *St. Foin*; and is much cultivated in Europe for feeding cattle; and the *vespertilionis*, much admired for its beauty, as, in a gentle breeze, the leaves, as they move, resemble so many variegated butterfly flies: but the most remarkable is the first or *moving plant*, the singular motion of which is described as follows in Linneus's Supplement: "This is a wonderful plant, on account of its voluntary motion, which is not occasioned by any touch, irritation, or movement in the air, as in *miflora*, *oxalis*, and *dioncea*; nor is it so evanescent as in *amorphia*. No sooner had the plants raised from seed acquired their ternate leaves, than they began to be in motion this way and that; this movement did not cease during the whole course of their vegetation, nor were they observant of any time, order, or direction; one leaflet frequently revolved, while the other on the same petiole was quiescent; sometimes a few leaflets only were in motion, then almost all of them would be in movement at once; the whole plant was very seldom agitated, and that only during the first year. It continued to move in the stove during the second year of its growth, and was not at rest even in winter." It is a native of the East Indies, called there *burram chandali*, and grows and flowers luxuriantly in Jamaica. Swartz observed the motion sometimes cease entirely. In a hot day it was immoveable, being agitated only in the evening, and that slowly.

## FRENCH MARYGOLD.

## PECTIS.

CL. 19, OR. 2.—*Syngenesia polygamia superflua.* NAT. OR.—*Composita.*

GEN. CHAR.—Calyx five-leaved, cylindric; corolla rayed; corollets hermaphrodite in the disk; females five in the ray; corolla of the hermaphrodite funnel-form, five-cleft; of the female ligulate-ovate; stamens, in the hermaphrodites, five short filaments, with cylindric tubular anthers; the pistil in hermaphrodites has a linear germ, filiform style, bifid stigma; in the females, a linear germ, filiform style, and two revolute stigmas; there is no pericarp, the calyx unchanged, spreading; seeds in the hermaphrodite solitary, linear; down with two or three spreading awns; in the females very like the other; receptacle naked. One species is a native of Jamaica.

## LINIFOLIA. LINEAR-LEAVED.

*Hieracium fruticosum, angustissimis gramineis foliis, capitulis parvis.*  
Sloane, v. 1, p. 255, t. 150, f. 1. *Minor, caule subdiviso diffuso,*  
*foliis linearibus integris.* Browne, p. 319.

Leaves linear, quite entire, even on both sides.

This plant is common in most of the sugar colonies. The common calyx is composed of five, six, or seven narrow equal scales, joined together in a cylindric tube, containing so many female ligulate florets, disposed very orderly round the margin, and a few hermaphrodites.

hermaphrodites in the centre. The plant is spreading and slender, and seldom rises above eighteen or twenty inches in height.—*Browne*.

Two species of the *tagetes* or *African marigold*, the *patula* and *erecta*, were introduced long ago, and have become very common ornaments in Jamaica gardens; they have run into a great many varieties in colour, viz. pale yellow, deep yellow, orange colour; also with single, double, and fistulous flowers.

## FRENCH-OAK.

## BIGNONIA.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Personata*.

This was so named in honour of Abbe Bignon, librarian to Louis XIV.

GEN. CHAR.—Calyx a one-leafed perianth, erect, cup-form, five-cleft; corolla monopetalous, campanulate; throat, bell-form, five-cleft, ventricose beneath, border five-parted; the stamens are four subulate filaments, shorter than the corolla, two longer than the others; anthers reflex, oblong, as it were doubled; the pistil has an oblong germ, a filiform style, and capitate stigma; the pericarp is a two-celled silique, two-valved; partition membranaceous, parallel, thickened at the sutures; seeds many, imbricate, compressed, membrane-winged on both sides. Four species are natives of Jamaica, the following, and the *leucocylon*, or white-wood.

## 1. LONGISSIMA. LONG.

*Arborea foliis ovatis verticillato-ternatis, siliqua gracili longissima*.—

*Browne*, p. 264.

Leaves simple, oblong, acuminate; stem erect; seeds woolly.

This is an elegant upright tree, forty feet high, and upwards. Leaves quite entire, waved, shining, opposite or ternate, two inches long, on a slender petiole, an inch in length, mostly at the ends of the twigs; racemes terminating, paniced, weak, with about forty flowers, smelling sweet, whitish, with two fertile and three barren stamens. Siliques very slender, roundish, two feet long, frequently covering the whole head of the tree: seeds linear, acuminate at both ends, clothed with wool.—*Jacquin*.

This beautiful tree is now cultivated in many parts of Jamaica, especially in the lowlands and savannas, where it seems to thrive very luxuriantly. It grows to a considerable size, and is generally looked upon as an excellent timber tree. Its numerous flowers and slender siliques add a peculiar grace to its growth.—*Browne*.

It is known in Jamaica by the name of *French oak*; the French call it *chene noir*.—These trees are also known by the name of *trumpet flower*. There is another tree sometimes called *French oak*, the *olive bark*, which is afterwards described under that name.

## 2. STANS. STANDING.

*Apocyno affine Gelseminum Indicum hederaceum fruticosum minus*.—

*Sloane*, v. 2, p. 63. *Fruticosa, foliis pinnatis serratis ovatis, floribus luteis*. *Browne*, p. 264.

Leaves pinnate, leaflets serrate; stem erect, firm; flowers racemed.

This

This shrub is common in all the sugar islands, it grows from four to eight feet in height, chiefly in a dry rocky or gravelly soil, with a small firm and woody trunk, little branched. Leaves opposite, petioled; leaflets sub-sessile, elongate-lanceolate, acuminate, veined; racemes terminating, upright; the flowers yellow, with red lines on the inside of the tube; siliques half a foot in length, with winged seeds.—*Jacquin*. Miller says he received the seed of this plant from Bermuda by the title of *candle-wood*; and it is known by the name of *branching trumpet-flower*.

## 3. UNGUIS-CATI. CAT-CLAW.

*Apocyno affine, Gelsemium Inaicum hederaceum herbaceum tetraphyllum, folio subrotundo acuminato.* Sloane, v. 1, p. 208.

Leaves conjugate; tendril very short, bowed, three-parted.

This has a woody stalk, about the bigness of a hen's quill, covered with a smooth bark of an ash-colour, climbing trees and hedges; at every three or four inches distance putting forth leaves, which are small, ovate, entire, shining, roundish, smooth, rarely indented, and placed opposite at every joint; at which place come also tendrils, by which the plants fasten themselves to whatever may be near them. The flowers are axillary, and shaped like those of fox-glove.

See WHITE-WOOD and OLIVE BARK.

FRENCH PHYSIC NUT—See PHYSIC NUT.

No English Name.

FUCHSIA.

CL. 8, OR. 1.—*Octandria monogynia.* NAT. OR.—*Onagra.*

This was so named in honour of Leonard Fuchs, a famous German botanist.

GEN. CHAR.—Calyx one-leafed, coloured, bearing the corolla, very large; corolla four small petals; stamens four or eight, filiform; anthers twin; the pistil has an inferior germ, simple style, and obtuse stigma; the pericarp an ovate berry, inferior, four-celled; seeds many, ovate, fixed in a double row to a columnar receptacle. One species was discovered in this island by Swartz, another, the *coccinea*, has been introduced.

## 1. INVOLUCRATA. INVOLUCRED.

Flowers involucred.

## 2. COCCINEA. SCARLET.

Leaves opposite, ovate, tooth-letted; petals obovate, obtuse.

This plant is a native of China, and was introduced by Mr. East. It has an herbaceous stem, lanceolate-sessile leaves, disposed in threes. Peduncles one-flowered.—Flowers large, very fine, of a very bright scarlet, having eight stamens, not projecting beyond the flower; and the berry is little larger than an olive, fleshy, soft, reddish-black, somewhat pubescent, and of a pleasant taste; the seeds are small and brown, by which it is propagated.

FUNGUS—See MUSHROOMS.

FORZE.



## FURZE.

## ULEX.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionacea*.

GEN. CHAR.—Calyx a two-leaved perianth; corolla has an ob-cordate standard, oblong wings, and a two-petaled keel; the stamens have simple filaments, all connected, and simple anthers; the pistil has an oblong germ, a filiform style, and an obtuse small stigma; the pericarp is an oblong legume, turgid, scarcely longer than the calyx, straight, one-celled, two-valved; the seeds are few, roundish, emarginate. Two species have been introduced.

## 1. EUROPEUS. EUROPEAN.

This is the common *whin*, *furze*, or *gorse*, so common in Great Britain, which, since its introduction, has thriven very well in Jamaica; and perhaps should be more generally cultivated than it has been. An ingenious gentleman observes, that "Mr. Forster, in his account of Captain Cooke's second voyage, says, that, in the island of St. Helena, where they have frequently droughts of many months continuance, this plant was introduced into their burnt pastures, where it throve well, and that, under its shade, a sward of thick sweet pasture grass made its appearance, which withstood the dry weather. Admitting the authority of this fact, which can hardly be doubted, the experiment merits the most serious attention of the inhabitants of the dry flat parts of this island. Should it be found to succeed upon trial, it would soon be seen covering our arid plains, instead of the useless and poisonous *oppopanax*." In addition to the above observations, there are other great recommendations to the cultivation of this plant in Jamaica, for furze makes good hedges, and is also an excellent fodder for cattle properly prepared. It is found highly useful in Scotland for that purpose, during the winter season; where it is cut young, bruised, to break the thorns, chopped into small pieces, and given to horses and cattle with great success. All grazing animals feed freely upon its tender tops. Where fuel is scarce it would also be found highly useful, as its wood burns very freely, and with great heat.

## 2. CAPENSIS. CAPE.

Leaves solitary, obtuse; spines simple, terminating.

This species is a native of the Cape of Good Hope, and has also been introduced.

## FUSTIC.

## MORUS.

CL. 21, OR. 4.—*Monoecia tetrandria*. NAT. OR.—*Scabrida*.

GEN. CHAR.—Male flowers in an ament—Calyx a four-parted perianth; leaflets ovate, concave; corolla, none; the stamens are four awl-shaped filaments, erect, longer than the calyx, one within each calycine leaf; anthers simple. The female flowers are heaped either on the same or a different individual from the males—Calyx a four-leaved perianth; leaflets roundish, blunt, permanent, the two opposite outer ones incumbent; there is no corolla; the pistil has a cordate germ; two awl-shaped styles, long, reflex, rugged; with simple stigmas; there is no pericarp; calyx very large, fleshy, becoming succulent, like a berry; seed single, ovate, acute. One species is a native of Jamaica, and four of the mulberry kind have been introduced.

TINCTORIA.

## TINCTORIA. DYING.

*Morus fructu viridi, ligno sulphureo tinctorio.* Sloane, v. 2, p. 3; t. 153, f. 1. *Lactescens; foliis oblongis acutis, paginis exterioribus productioribus, ligno citrino.* Browne, p. 339.

Leaves oblong, more produced on one side; spines axillary.

This is a tall branching tree, growing forty or fifty feet high, with a light brown bark. It abounds with a slightly glutinous milk of a yellow colour. The wood is firm, solid, and of a yellow colour, an excellent timber-wood, and used in dying, for which purpose it furnishes an article of export. The branches spread on every hand, some of them having a few awl-shaped solitary spines, and some none. The leaves are acuminate, serrate, veined, distich, on short petioles, of various sizes, and of a dark green colour. Aments solitary, pendulous, axillary between the petiole and the spine, two or three inches in length, cylindric, and very close; female flowers collected into a globe; their receptacles axillary, glaucous green, solitary, with short petioles; among them are some chaffy bodies, which perhaps were flowers suffocated by their neighbours, and dried up. Fruit yellowish-green, as large as a nutmeg, roundish, containing flat, brown, small, seeds, like linseed; before it ripens milky and not pleasant; but when come to maturity it has a pleasant taste, and is chiefly eaten by birds. This tree is of a quick growth, Sloane says he saw trees thirty or forty feet high only seven or eight years old. It grows commonly in every part of Jamaica, and yields a yellow and brittle resin. Barham says the fruit is astringent and cooling, and makes excellent gargles for sore mouths and throats. It is said that the salt made out of the ashes of its wood, ten grains with treacle or mithridate, given for three or four days successively, gives immediate ease in the gout and rheumatism, for which purpose Pommet asserts that no medicine is like it.

This is one of the most valuable trees in the island, whether we consider its use in dying, or the excellence of its timber; the latter quality, indeed, has proved fatal to so many of them, that, unless care is taken to propagate from the seed, it is likely to become very scarce. The fruit in size, colour, and shape, resembles the white mulberry; it is in perfection in March and April.

It is painful to reflect on the vast number of these, and other valuable woods in the island, which have been annually cut down, for burning and other trifling purposes; for which many other trees, of less worth, would have been equally fit. This devastation is so inconsiderably made, and so extensive, that the whole class might, by this time, have been exterminated from Jamaica, if the birds and other animals had not replenished it, in the less frequented parts, with young plants.

Thus much may be said for the settlers; that, upon opening land for a plantation, it is necessary to clear the whole wood away; which is not the case in forming pasture grounds; but, when the consideration happens which trees shall be cut down, and which spared, such a crowd is found of what are valuable and useful, for some or other important purpose, that the choice is difficult. Yet, as most estates are possessed of waste land, what deserves to be recommended is, the planting nurseries of the most useful trees on such lands; which, if any number of persons were to do, the several species would soon be propagated, by birds and other means, in most parts of the island, where, at present, they are scarce, or not to be met with; and, at a small expence, a sure foundation laid of great future profit. —Long, p. 329.

The

The following exotic species have been introduced: 1, The *alba*, or white mulberry tree, a native of China, which thrives very well in Jamaica, but, like the following species, seldom produces much fruit. This tree is principally cultivated for its leaves as food for silk-worms, and perhaps those of the fustic would answer equally well.— 2, The *rubra*, or red mulberry tree, a native of Virginia, also cultivated as food for silk-worms. 3, *Nigra*, the black mulberry, a native of Persia, which is a tree of larger size than the white, having the fruit of a dark blackish-red colour, of which a pleasant wine is made. 4, *Papyrifera*, or paper mulberry, a native of Japan and the South Sea islands. In Japan a kind of paper is made of its bark; by a process which is described at some length by Kœmpfer. Cloth is also made of its bark in Otaheite, as well as of that of the bread-fruit tree.

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GALACTIA—See BLUE PEA FLOWER.

GALAPEE OR ANGELICA TREE.

ARALIA.

CL. 5, OR. 5.—*Pentandria pentagynia*. NAT. OR.—*Hederaceæ*.

GEN. CHAR.—Calyx involucre, very small, of a globular umbellule; perianth five-toothed, very small, superior; the corolla has five petals, ovate, acute, sessile, reflex; the stamens are five filaments, subulate, the length of the corolla, with roundish anthers; the pistil has a roundish germ, inferior; styles very short, permanent; stigmas simple; the pericarp is a roundish striated berry, crowned, five-celled; seeds solitary, hard, oblong. Three species are natives of Jamaica.

1. ARBOREA. TREE.

*Laurifolia arbor flore tetrapetalo, fructu racemoso rotundo annulato et coronato.* Sloane, v. 2, p. 20, t. 163, f. 2. *Arborea foliis nitidis oblongo-ovatis, umbella laxa, radiis singulis glandula notatis.*—Browne, p. 189.

Stem arboreous; leaves simple; rays of the general umbel with a single gland.

This tree seldom grows above fourteen or fifteen feet in height, with straight branches, and moderately large leaves, which come out at the ends of the twigs without order, on short footstalks; they are narrow at the beginning, and augmenting to the top, where they are blunt and round; they are smooth, shining, and thick. The tops of the branches are adorned with a great number of flowers, disposed in an umbellated but irregular order, having only four petals, oblong, of a pale yellow colour; which are succeeded by many small whitish succulent berries, the small umbels having each

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fronds

from eight to thirty radioli. The fruit is coronated, and very elegant:—*Sloane & Browne*.

2. CAPITATA. HEADED.

Leaves elliptical, entire; racemes compound, terminating; flowers sessile, in little heads.

Stem arborescent, erect, cylindrical, abruptly branched; bark brown, a little cracked; branches curved upwards, leafy, terminated by flowers. Leaves scattered, more crowded towards the tops of the branches, on footstalks, wide-spreading, pointed, waved on the margin, very smooth, obscurely three-nerved, veiny, bright green; footstalks various in length, nearly cylindrical, smooth, firmly fixed to the branch by an enlarged triangular base. Buds consisting of several large, roundish, smooth, yellowish, scales, soon falling off, which are often tipped with the rudiments of a leaf, and appear like abortive leaves. Racemes erect, branches generally alternate, ending in little round heads of many sessile flowers. Common footstalks obsoletely angular, pale green, sprinkled with rusty coloured powder; partial ones cylindrical; bractes solitary at the base of the latter, small, concave, pointed, entire, powdery. Flowers numerous, white, so small that the structure is not readily to be understood, each stands on its proper involucre, resembling a calyx of one leaf, in five divisions, externally powdery, permanent. Calyx pale green, smooth, permanent. Petals on the margin of the calyx, ovate, somewhat pointed, white, deciduous. Filaments opposite to the teeth of the calyx, and alternate with the petals, spreading, white; anthers roundish, two-lobed, yellow; germ below the flower, crowned with the calyx, roundish, smooth. Styles short, erect, at first united into one body, then spontaneously splitting into several, varying in number from three to ten; berry smooth, brown, with five or more cells, each probably containing one seed. Jacquin, the first discoverer, long ago suspected that this species belonged to the genus *hedera*, or ivy, but later authors have kept it in that of *aralia*. This fine plant was discovered in Martinico by Professor Jacquin, and in Jamaica by Dr. William Wright and Mr. Francis Masson. —*Martyn*.

3. SCIODAPHYLUM.

*Foliis majoribus oblongis petiolis communibus umbellatim affixis, floribus spicatis.* Browne, p. 190, t. 19, f. 1, 2.

Arborescent; leaves digitate, with very numerous unequal leaflets; raceme very long, simple, nodding; peduncles umbelled.

This plant is frequently found in New-Liguanea mountains, and Browne's figures are very correct. He says he only met one of the plants, the trunk of which was about twelve or thirteen inches in diameter, and raised its branched top to the height of fourteen or fifteen feet. The leaves are generally from sixteen to twenty together, simple, oblong, and supported by moderate footstalks, whereby they are fastened in an umbellated form to the top of so many common supporters, generally longer than the leaves, of a moderate thickness, and sustaining their burthen with great ease; while the others spread themselves like an umbrella, and cast a beautiful shade below them. The flowers stand on simple robust spikes. —*Browne*.

GALIMETA—See BASTARD BULLY TREE.

GARDEN

GARDEN BALSAM.

IMPATIENS.

CL. 19, OR. 6.—*Syngenesia monogamia.* NAT. OR.—*Corydalis.*

This was so named on account of its fruit being impatient, and bursting open on the least touch.

GEN. CHAR.—Calyx a two-leaved perianth; corolla five-petaled; irregular, with a cowed nectary, whose base ends in a tail or spur; stamens short, anthers connate; the pistil has an ovate-acuminate germ, no style, and a simple stigma; the pericarp is one-celled, five-valved, superior, springing open elastically; the valves rolling spirally; seeds several; roundish, fixed to a columnar receptacle. One species of this genus has been introduced, and grows plentifully in Jamaica.

BALSAMINA. — BALSAM.

Peduncles one-flowered, aggregate; leaves lanceolate, the upper ones alternate; nectary shorter than the flower.

It hath a fibrous root, an upright, thick, succulent stalk, branching all around, a foot and a half or two feet high; with long spear-shaped sawed leaves, the upper ones alternate; and from the joints of the stalk and branches clusters of short footstalks, each sustaining one large irregular flower, of different colours in the varieties; which are succeeded by capsules that burst open and dart forth their seeds with great velocity; when touched, whence they are often called *touch me not*. The valves twist spirally, and contain roundish seeds fixed to a column. It is easily propagated from the seeds, and from its great variety of beautiful colours, if tastefully intermingled, forms a great ornament to the garden. It is a native of the East Indies, and was brought to Jamaica many years ago, where it thrives well, and has been generally cultivated on account of its beauty. The seeds grow very readily.

See JUSTICIA BALSAM.

GARDEN CRESS—See PEPPER GRASS.

GARLIC.

ALLIUM.

CL. 6, OR. 1.—*Hexandria monogynia.* NAT. OR.—*Spathaceae*

GEN. CHAR.—See Eschschot, p. 284.

SATIVUM. CULTIVATED.

Bulb compound; stamens three-cusped.

This well known plant thrives extremely well in Jamaica, though a native of Europe. It has a bulbous root, of an irregularly roundish shape, with several fibres at the bottom; each root is composed of a number of lesser bulbs, called *cloves of garlic*, inclosed in one common-membranous coat, and easily separable from one another. All the parts of the plant, but more especially the roots, have an acrimonious, and almost caustic, taste, with a strong offensive smell.

This pungent root warms and stimulates the solids, and attenuates tenacious juices; for which it is well adapted, on account of its being very penetrating; inasmuch that,

See 2

when

when applied to the feet, its scent is soon discovered in the breath; and, when taken internally, its smell is communicated to the urine, or the matter of an issue, and perspires through the pores of the skin. Hence, in cold-eucophlegmatic habits, it proves a powerful expectorant, diuretic, and emmenagogue; and, if the patient is kept warm, sudorific. It is also of great service in humoral asthmas, and catarrhus disorders of the breast, and in other disorders proceeding from a laxity of the solids, and cold sluggish indispositions of the fluids. It is also frequently of service in the dropsy; in the beginning of which it is particularly recommended by Sydenham, as a warm strengthening medicine; we have even many examples where it acts so powerfully as a diuretic, as to carry off all the water of dropsies. It may be taken the length of a drachm or two in substance for a dose.—We have a syrup and oxymel made with it, which may be employed for the same purposes as the garlic in substance; but they are mostly used in pulmonic disorders. Externally applied, it inflames and ulcerates the skin, and is sometimes employed for this use in sinapisms. It has also been recommended by Sydenham as a most powerful revellent; for which purpose he was led to make use of it in the confluent small-pox. His method was to cut the root in pieces, and apply it tied in a linen cloth, to the soles of the feet, about the eighth day of the disease, after the face began to swell, renewing it once a day till the danger was over.—When made into an unguent with oils, and applied externally, garlic is said to resolve and discuss cold tumours, and has been by some greatly celebrated in cutaneous disorders. The acrimonious qualities of this root, however, render it manifestly improper on many occasions. Its liberal use is apt to occasion head-achs, flatulencies, thirst, febrile heats, inflammatory distempers, and sometimes discharges of blood from the hæmorrhoidal vessels. In hot bilious constitutions, where there is already a degree of irritation, where the juices are too thin and acrimonious, or the viscera unsound, it never fails to aggravate the distemper.

A dose or two of garlic, pounded with honey, and taken two or three nights together, is good in rheumatic cases; a clove of it kept in the mouth is said also to be a good preservation against infection. A quart of water, poured boiling hot upon a pound of the fresh root cut into slices, and suffered to stand upon it in a close vessel, for twelve hours, becomes strongly impregnated with the smell and taste of it; and this infusion, with a proper quantity of sugar, makes the syrup of garlic of the shops. Vinegar and honey excellently coincide with and improve this medicine, as a detergent and deobstruent, in disorders of the breast: a composition of this kind is prepared by infusing an ounce and a half of the fresh root in half a pint of vinegar, and dissolving in the strained liquor, by the heat of a water-bath, ten ounces of clarified honey: to cover in some degree the ill smell of the garlic, a little carraway and sweet fennel seed, bruised, two drachms of each, are boiled for a short time in the vinegar, before the garlic is put in. The garlic itself should never be boiled, its essential oil, in which its virtue consists, exhaling during that process.

Sir William Temple, in his Treatise on Health and Long Life, says, "Garlic has, of all plants, the greatest strength, affords most nourishment, and supplies most spirit to those who eat little flesh. It is of great virtue in colics, a great strengthener of the stomach upon decays or indigestion, and, I believe, (if there be any such) a specific remedy in the gout. I have known great testimonies of this kind within my acquaintance, and have never used it myself, upon this occasion, without an opinion of some success or advantage."

Hughes

Hughes, in his History of Barbadoes, gives the following method of destroying Guinea worms: Take an ounce of garlic, one of black pepper, pulverised, and an ounce of the flour of brimstone; mix these well together in a quart of rum; and for three or four mornings successively give a wine glass full of this infusion to the person afflicted; and, if he hath a thousand about him, each will contract itself into a coil, and die, and then fall off in the form of a boil from the surface of the skin.—Hughes, p. 42.

Besides the common garlic, the *gracile*, or African garlic, has also been introduced from Africa; and has been erroneously termed *Jamaica garlic*, from the circumstance of Hinton East, Esq. having sent the seeds from this island to England in the year 1787.

See ESCHALOT and ONION.

GARLIC PEAR-TREE.

CRATEVA.

CL. 11, OR. 1.—*Dodecandria monogynia.* NAT. OR.—*Putamineæ.*

This generic name is said to be derived from Cratevas, a Greek botanist, mentioned by Hippocrates.

GEN. CHAR.—Calyx a one-leafed, four-cleft, deciduous, perianth, flat at the base; divisions spreading, ovate, unequal; the corolla has four petals, which are oblong, bent down to the same side, claws slender, length of the calyx, inserted into the divisions; stamens sixteen or more (twelve to fourteen), bristle-form, declined to the side opposite the petals, shorter than the corolla; anthers erect, oblong; the pistil is a germ on a very long filiform pedicel, ovate; no style; stigma sessile, headed; the pericarp, a berry, fleshy, globose, very large, pedicelled, one-celled, two-valved; seeds many, roundish, emarginate, nestling.—Two species are natives of Jamaica.

1. TAPIA.

*Anona trifolia, flore stamineo, fructu spherico ferrugineo scabro minore, allii odore.* Sloane, v. 2, p. 169. *Arborea triphylla, foliis crassis ovatis.* Browne, p. 247.

Unarmed; leaflets ovate, acuminate; petals ovate-roundish, blunt; germs globular.

This tree has a large trunk, and rises to the height of thirty feet, or more, covered with a dark green bark, sending out many branches, so as to form a large head. The branches are garnished with trifoliate leaves, standing on pretty long footstalks; the middle leaf, which is much longer than the others, is oval, about five inches long, and two and a half broad in the middle; the two side leaves are oblique, those sides which join the middle leaf being much narrower than the other, and turn at both ends toward the middle, so that their midrib is not parallel to the sides; these two end in acute points: they are all smooth, of a light green on the upper side, and paler below, their edges entire, and standing on short footstalks. The flowers are produced at the ends of the branches, standing upon long peduncles. The fruit is about the size of an orange,

orange, perfectly spherical, having a hard brown shell, or cover, a mealy pulp, like that of a pear, sweetish, smelling like garlic, (whence the name); and near its centre are placed many kidney-shaped seeds, black, shining, and large. This tree grows very commonly in the lowlands of Jamaica, and its fruit is edible, though not very pleasant. When hogs or other animals eat of them, they communicate the smell of garlic to their flesh. Barham says the fruit is cooling and restraining, and that the leaves are an excellent remedy, outwardly applied, to take away all inflammations of the anus and hæmorrhoids; and also to ease pains of the head and ears.

2. GYNANDRA. GYNANDROUS.

*Arborea triphylla, foliis parvis glabris, racemis terminalibus.* Browne, p. 246.

Unarmed; leaflets ovate, quite entire; flowers gynandrous.

This is very like the other species, and is principally distinguished by having thinner leaves, and the stamens elevated on a column the height of the calyx. The trunk grows to twenty feet high. The flowers are of a purple colour. It is a native of Jamaica, growing in dry coppices near the sea, flowering in May and June. The plant has a burning taste and a nauseous smell. In Dr. Dancer's Medical Assistant, the bark of the root is said to vesicate or blister like cantharides.

GENIP-TREE.

MELICocca.

CL. 8, OR. 1.—*Octandria monogynia.* NAT. OR.—*Sapindi.*

This was so named by Browne from two Greek words, signifying honey grain.

GEN. CHAR.—Calyx a four-parted perianth; leaflets ovate, concave, blunt, spreading; the corolla has four petals, oblong, equal, bent back entirely among the leaflets of the calyx; the stamens are eight awl-shaped filaments, upright, short; anthers oblong, upright; the pistil has an ovate germ, almost the length of the corolla; style very short; stigma large, sub-peltate, extended on both sides, oblique; the pericarp is a barked drupe, round, or ovate; the seed a coriaceous nut, roundish, smooth. There is only one species, which was brought to Jamaica many years ago.

BIJUGA. TWO-PAIRED.

*Foliis ut plurimum bijugatis ovatis, per pennas alas dispositis.* Browne, p. 210.

This beautiful fruit tree has a strong unarmed trunk, and grows to a considerable size, with thick spreading branches. The leaves are pinnate with two pairs of leaflets; the common petiole elongated, round below, channelled above, somewhat compressed between the leaflets, which are sub-sessile, or on very short petioles, ovate, acuminate at both ends, entire, nerved, smooth on both sides, bright green. The racemes are compound, terminating; branchlets alternate, simple, upright. Nectary and anthers yellow. The base of the germ is surrounded by a carnosous umbilicus, made up of eight nectareous glands; the cup is permanent. Drupe about an inch in diameter, sometimes oval, sometimes round, having a thin green, brittle bark, grooved on the inside; the seed (there is rarely more than one) is covered with a deliciously sweet-acid



acid gelatinous substance, like the yolk of an egg, mixed with very fine fibres, adhering tenaciously to the seed, and is very agreeable to the taste. It flowers in April and May, and the fruit is in perfection about August. One tree bears hermaphrodite flowers, and another male only, which therefore never produces any fruit. Of the last kind is the large and beautiful tree now growing opposite the secretary's office, in Spanish Town, which is at present nearly forty feet high, having a trunk two feet and a half in diameter, and about twenty-one years old. Browne says the first of these trees was brought to Jamaica from Surinam, by one Guaf, a Jew. It has since been generally propagated, and thriven remarkably well in the lowlands; and a great number have been planted in the towns, where they not only afford ornament, but, from their thick foliage, a very agreeable shade. This tree sheds its leaves annually, in the spring, when the new leaves and blossoms make their appearance together; and, in rainy weather, the progress of its vegetation is so rapid that the new leaves are completely budded and unfolded in the short space of forty-eight hours, the old foliage, yet in a green state, which ornamented the tree only yesterday, is forced off and strewed withering on the ground. When the blossoms open they diffuse their agreeable fragrance to a very considerable distance, and attract towards them, during that time, swarms of bees and humming birds to feed upon their honey. It has been observed that these trees, when young, bear blossoms two or three years without being succeeded by any fruit; and it is also remarkable that the leaves of old trees lose the foliated margin upon the common middle rib, which is only to be seen in the leaves of the young ones.

See SEA SIDE PLUM.

## GERMANDER.

## TEUCRIUM.

CL. 14, OR. 1.—*Didynania gymnospermia*. NAT. OR.—*Verticillata*.

This was so named from Teucer, son of Scamander, and father in law of Dardanus, King of Troy.

GEN. CHAR.—Calyx a one-leafed half five-cleft perianth; corolla one-petaled, ringent, upper lip two-parted, beyond the base, divaricating where the stamens are; stamens four filaments, with small anthers; the pistil has a four-parted germ, a filiform style, and two slender stigmas; there is no pericarp; calyx unchanged, fostering the seeds at the bottom, which are four, roundish. One species is a native of Jamaica.

INFLATUM. INFLATED.

*Subhirsutum; foliis ovatis, dentato serratis; spicis strictioribus, crassis terminalibus.* Browne, p. 257.

Leaves oblong-acuminate, unequally serrate, pubescent; spikes sessile, terminating; calyxes inflated, villose.

This is called *thick spiked* or *hairy* germander. Browne says it is pretty frequent in the lower parts of St. Mary's, where it grows very luxuriantly, though it seldom rises above two feet and a half in height. The flower-cup is a little inflated, and the spikes stiff, straight, and thick.

See SEA SIDE GERMANDER.

No English Name.

GESNERIA.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Personata*.

This was so named by Plumier, in honour of Conrad Gesner of Zurich, a famous botanist and natural historian.

GEN. CHAR.—Calyx a one-leaved perianth, superior, five-cleft, sharp, permanent; corolla one-petaled, incurved and recurved, tube thickish, with a contracted neck and funnel-form throat; border five cleft, blunt; upper divisions concave, three lower flat, spreading; the stamens are four filaments, shorter than the corolla, with simple anthers; the pistil has an inferior germ, flattened; a filiform style, the same in situation and length with the stamens; stigma capitate; the pericarp is a roundish capsule, crowned with the patulous calyx, sub-bilocular; partition in the middle longitudinally interrupted: (Swartz says, if cut transversely near the top, it appears one-celled; if through the middle two-celled); seeds extremely numerous, and very small; receptacles on each side fastened to the partition.—Eleven species of this genus have been found in Jamaica.

1. PULCHRELLA. BEAUTIFUL.

*Achimenes* 2.—*Minor, erecta, simplex; foliis crenatis, ovatis, oppositis vel ternatis; floribus petiolatis singularibus ad alas*. Browne, p. 271, t. 30, f. 1.

Herbaceous; leaves ternate, ovate, acute, serrate, villous; peduncles axillary, one-flowered.

This is an elegant little plant, seldom growing above fourteen inches high, and has been found near the Hope River, and in other parts of the low mountains in Liguanea. The root is branched, fibrous, stoloniferous. The young shoots resemble aments or catkins, are cylindric, and closely imbricate, with ovate pubescent scales, thickened at the base, emarginate, and red. Stems several, almost upright, branched, round, covered thick with a fine down, dusky purple, herbaceous; branches ternate, spreading; the stem leaves are in threes, on the branches usually opposite, ovate, or ovate-lanceolate, sharp at both ends, loosely serrate, entire at the base, with nerves prominent below, grooved above, villous on both sides, green, beneath paler, and frequently blood-red: petioles round on one side, on the other flattish and slightly channelled, one-third the length of the leaves. Flowers resembling those of *ruellia*, axillary, solitary, peduncled, inclined, red; peduncles spreading very much, round, villous, red, twice the length of the petioles; calyx villous, ending in a turbinate germ, red at the base: tube of the corolla pubescent, of a fine vermilion colour; throat tricallous at bottom, with oblong tubercles, hollowed outwards, each opposite to each segment; the opening of the lime of a rich carmine colour. Besides the four fertile filaments, there is a fifth superior to and shorter than the others, which has no anther. This plant has been made a new genus, *cyrilla*, as it differs from the other species of *gesneria*, by its funnel-form corolla, with a cylindric straight tube, and a flat almost equal border. Browne says it thrives best in a cool gravelly soil, well furnished with moisture, and intermixed with rich mould; and that on account of its beauty and elegance it should be cultivated in flower gardens.

2. ACAULIS.

## 2. ACAULIS. STEMLESS.

*Rapunculo affinis anomala vasculifera, folio oblongo, serrato, flore coccineo tubuloso, semine minuto, oblongo, luteo.* Sloane, v. 1, p. 159, t. 102, f. 1. *Rupestris indivisa, foliis oblongis rugosis summo caule dispositis, floribus singularibus ad alas.* Browne, p. 262.

Leaves lanceolate-ovate, serrate, sub-petioled, crowded at the end; peduncles three-flowered, shorter than the leaf.

This has a woody round stem, and a clay-coloured bark, with some furrows in it, rising three or four inches high, having at the top very many oblong leaves, standing very thick, without any order, on footstalks a quarter of an inch in length, covered with a reddish wool, like moss. They are seven inches long, and an inch and a half broad, near the farther end, whence they narrow to a point, and they also grow gradually narrower to the footstalk. From the axils come out small peduncles, branched, sustaining scarlet flowers an inch long, which are followed by a short, fungous, cornered seed vessel, having no distinct cells, containing many small, oblong, yellowish seeds.—*Sloane.* Browne calls it *small tufted gesneria*, with scarlet flowers; and observes, that the stem is always simple, creeping along the rocks, and bearing a pretty large tuft of leaves, at the extremity, with single flowers springing from each axil. Swartz describes the stem as very short at first, but, as it advances, becoming frequently a foot in length, and in this state covered with leaves and calyxes. The leaves are rugged and wrinkled. The calyx is five-parted; the parts linear and very long: the limb of the corolla is contracted and five-notched; the filaments are nearly equal; the anthers roundish and connected; the germ is ovate; the style longer than the corolla; the capsule is covered with the calyx, is five-cornered, grooved, and two-celled. It grows in the crannies of rocks going to Sixteen-Mile-Walk.

## 3. TOMENTOSA. DOWNY.

*Digitalis, folio oblongo serrato, ad foliorum alas florida.* Sloane, v. 1, p. 162, t. 104, f. 2. *Erecta, foliis lanceolatis rugosis hirsutis, pedunculis longissimis ramosis ex alis superioribus.* Browne, p. 261.

Leaves ovate-lanceolate, crenate, hirsute; peduncles lateral, very long, corymbiferous.

This plant rises with a shrubby stalk the height of from four to six feet, and is described as follows by Swartz: "Stem upright, a yard in height, suffrutescent, round, wrinkled, and hirsute. Leaves scattered towards the end of the stalk, on very short petioles, spreading, acuminate, serrate, nerved, and netted-veined, somewhat clammy, softish, tomentose-hirsute, hoary underneath; stipule roundish, revolute, crenate, tomentose; peduncles erect, round, hirsute, clammy, forming a sort of corymb at top, with unequal sub-divided pedicels. Corolla irregular, sub-campanulate, gibbous at the base and under the limb; the two upper segments approximate, so as to form one as it were that is bifid, arched in the middle, spotted on the inside with yellow and dark purple; the three lateral ones are spreading, ovate, acute; the lowest ventricose underneath; the tube is spotted within. The two anterior filaments are longer than the two others, and bowed in towards the pistil; anthers convex; style longer than the corolla; stigma cut half way transversely; capsule crowned with the calyx, two-celled." This is called by Browne the *hairy erect gesneria*, with open flowers, who

says it is common on the river courses, especially where the banks are dry and rocky. Sloane says the whole plant has a strong smell.

## 4. GRANDIS. GREAT.

Leaves broad-lanceolate, very long, tooth-letted, rough-haired above, rugged beneath; peduncles terminating; stem arborescent.

This and the following species, with the exception of *humilis*, were discovered by Swartz in Jamaica; they are all shrubby plants; and, as well as the other species, easily propagated from seeds.

## 5. SCABRA. RUGGED.

Leaves ovate-lanceolate, serrate, rugged; peduncles axillary; corollas cylindric, recurved.

## 6. CORYMBOSA. CORYMBED.

Leaves ovate, acute, serrate, scariose, sharp; peduncles many-parted; flowers in corymbs.

## 7. EXSERTA. THRUSTING.

Leaves ovate-lanceolate, crenate, smooth; peduncles three-flowered; genitals twice the length of the corolla; capsules ovate.

## 8. CALYCINA. CALYXED.

Leaves lanceolate-ovate, acuminate, serrate, smooth; peduncles three-flowered; genitals longer than the corolla; calyxes bell-shaped; capsules cylindric.

## 9. VENTRICOSA. VENTRICOSE.

Leaves elliptic, acuminate, crenate, smooth; peduncles four-flowered, or thereabouts; segments of the calyx awl-shaped, elongated; corollas ventricose.

## 10. PUMILA. DWARF.

Stemless; leaves ovate-wedge-shaped, crenate, sub-sessile; peduncles sub-biflorous, shorter than the leaves.

## 11. HUMILIS. HUMBLE.

Leaves lanceolate, serrate, sessile; peduncles branched, many-flowered.

The root of this is diffused and creeping; stem branched, naked at bottom; leaves aggregate at top, deciduous.

GHANDIROBA—See ANTIDOTE COCOON.

## GINGER.

## AMOMUM.

CL. I. OR. 1.—*Monandria monogynia*. NAT. OR.—*Scitamineæ*.

GEN. CHAR.—Calyx a one-leafed perianth, cylindraceous, unequally trifid; corolla monopetalous, funnel-shaped; tube cylindraceous; border three-parted, parts oblong, unequal.

unequal, spreading; nectary two-leaved or two lipped; lower lip inserted under the upper segment of the corolla, spreading, almost erect, entire or three-lobed; the stamen has no filament, except the upper lip of the nectary, smaller than the lower, and opposite to it, acuminate, or three-lobed at the tip; along the middle or at the end of which grows longitudinally a large oblong anther, geminate, or divided by a longitudinal furrow into two, which are one-valved; the pistil has an inferior oblong germ, a filiform style, drawn through the suture of the anther; stigma turbinate, obtuse, ciliate; the pericarp is a fleshy capsule, ovate, three-cornered, three-celled, three-valved; seeds several, covered with a sort of berried aril. Obs.—The inflorescence is in a spike on a distinct scape. Two species of this genus grow plentifully in Jamaica.

1. ZINZIBER. GINGER.

*Foliis lanceolatis, floribus spicatis, scapo florifero partiali.* Browne, p. 119.

Scape middle sized; spike ovate; leaves linear-lanceolate.

Root creeping, bypalmate, compressed, fleshy, tubers, with age becoming fibrose. Culm annual, two feet high, quite single, solid, upright. Leaves half a foot in length, smooth, alternate, on short embracing petioles. Scape separate, eight inches high, thick, round, straight, scaly, usually without leaves; spike upright, composed of large, ovate, sub-acuminate, coloured scales, half closing the flowers; calyx a small double spathe. Corolla yellowish green, with a long slender tube; the segments of the border conical, and nearly equal. Nectary reddish brown, ovate, quite entire, petal-shaped, winged on each side at the base, somewhat shorter than the corolla, fastened to it below the interior fissure of the segments. Filament (upper lip of the nectary) filiform, placed on the corolla, and shorter than it; anther ovate, large, cloven longitudinally, embracing the filiform style; stigma cylindraceous, ciliate at the tip; capsule smooth, with many oblong seeds in it.—*Loureiro*.

This plant is a native of the East Indies, and was introduced into New Spain by a person named Francisco de Mendoza, from whence it most probably was brought to Jamaica, where it now grows so plentifully, even in a wild state, as to induce a belief that it was indigenous to the soil. Since its introduction it has become an article of considerable export, for which purpose it has been generally cultivated. The following manner of preparing it in Jamaica is extracted from Long's History:

"It is propagated by the smaller pieces, prongs, or protuberances of the root, each of which throws up two different stems; the first bears the leaves, and rises to the height sometimes of three feet or upwards, but its usual growth seldom exceeds eighteen inches. It thrives best in a rich cool soil, and, therefore, what has been recently cleared from wood is well adapted to the culture of it, more especially as it is supposed to be a great impoverisher of land. In such a soil, it grows so luxuriantly, that a hand, or large spreading root, will weigh near a pound. It is, however, remarked, that what is produced from a clayey, tenacious soil, shrinks less in scalding, while such as is raised in richer, free, black moulds, loses considerably in that operation. The land intended for the cultivation of it, is first well cleaned with the hoe, then slightly trenched, and planted about the month of March or April. It attains its full height, and flowers about August or September; and fades about the close of the year. When the stalk is entirely withered, the roots are in the proper state for digging. This is

generally performed in the months of January and February. After being dug, they are picked, cleansed, and gradually scethed or scalded in boiling water, they are then spread out, and exposed every day to the sun, till sufficiently dried; and, after being divided into parcels of about one hundred pounds each, they are packed in bags for the market: this is called the *black ginger*. The manner of scalding the roots is as follows: a large pot or copper is fixed in the field, or some convenient place, which is kept full of boiling water; the picked ginger, being divided in small parcels, is laid in baskets, and plunged alternately in the water, where it is suffered to stay for the space of ten or fifteen minutes; it is then spread on a platform for drying; but care is taken, during the process, to change the water so soon as it becomes much impregnated with the juices of the root.

"The white sort differs but little from the black roots. The difference there is arises wholly from the methods of curing them; the white is never scalded, but, instead of this easy process, they are picked, scraped, and washed, once at a time, and then dried; all which requires too much pains and time for any real advantage to be gained in the properties; though, being made more agreeable to the eye, the price of the white is much higher at market.

"When the root is intended for a sugar-preserve, it is dug while tender and full of juice; the stems at this time rarely exceed five or six inches in height; the root is carefully picked, washed, and afterwards scalded, till it is sufficiently tender; it is then put in cold water, and peeled and scraped gradually. This operation may last three or four days, during which it is commonly kept in water, and the water frequently shifted, as well for cleanliness as to extract more of the native acrimony. After this preparation, it is laid in unglazed jars, and covered with a thin syrup, which in three days is shifted, and a richer put in; this is sometimes again removed, for a third, or fourth; but more than three are seldom requisite. The shifted syrups are not lost, for, in Jamaica, they are diluted with water, and fermented into a pleasant liquor, called cool drink, with some mixture of the chaw-stick, *lignum vitæ*, and sugar.

"Whether in its natural state or candied, this root is esteemed a good remedy against the cholic, loosenesses of the belly, and windy disorders. It strengthens the stomach, helps digestion, and is often added as a corrector to purges; its use in culinary preparations is well known,"—*Long, p. 700.*

The roots of ginger appear to be much less liable to heat the constitution than might be expected from the penetrating warmth and pungency of its taste. It gives out the whole of its virtue to rectified spirit, and great part of it to water. The spirituous tincture inspissated yields a fiery extract, smelling moderately of the ginger. A syrup made from an infusion of three or four ounces of the root, in three pints of boiling water, is kept in the shops. The cases in which ginger is more immediately serviceable are, flatulent cholics, debility and laxity of the system, and in torpid and phlegmatic constitutions, to excite a brisker action of the vessels. A limpid red transparent oil, swimming on water is, by simple distillation, got out of these roots, agreeing in smell and taste with ginger, only more mild. Dr. Wright says that ginger is good in baths and fomentations, in complaints of the viscera, pleurisies, and obstinate continued fevers. Infused in rum or wine, with filings of steel, it is also said to be useful in obstructions.

Ginger tea has been recommended in gouty cases. The mode of taking it is by powdering

powdering the dried root rough in a mortar. Begin with a heaped tea-spoonful, taken in boiled milk, either for supper or breakfast. The quantity may be increased to two or even three drachms. These directions were also given by Dr. Wright, to whom Sir Joseph Banks gave the following account of its effects upon himself, in 1784: "I have taken two tea-spoonfuls heaped up, of ginger powder, in a pint of milk, boiled with bread, and sweetened with sugar, for breakfast, for more than a year past. The weight of the ginger is between two and three drachms." At first, this quantity was difficult to swallow, if the ginger was good. I was guided in the quantity by the effect it had on my stomach; if it made me hicough the dose was too large. I found occasionally that it produced *odor urinae*; but this went off without any ill consequences whatever. I have not yet found it necessary to increase the dose; but I use rather a coarser powder than I did at first, which mixes more easily with the milk, and probably produces rather more effect than the fine.

"The late Lord Rivers took ginger in large doses for more than thirty years; and at eighty was an upright and healthy old man.

"I have, since I used the ginger, had one fit of the gout; but it was confined entirely to my extremities, and never assailed either my head, my loins, or my stomach, and lasted only seventeen or eighteen days; but the last fit I had, before I took the ginger, affected my head, my stomach, and my loins, and lasted, with intervals, from the end of October to January."—*Sinclair's Code of Health*, v. 1, p. 233.

The root, preserved or candied, is an excellent stomachic, warming and comforting; boiled in wine, with a little cummin seed, it eases the pain of the stomach, and causes sweat; outwardly applied, mixed with cocoa-nut oil, draws out poisons in wounds; and rubbed upon the stomach, comforts it, and eases pains from a cold cause.—*Barrham*, p. 63.

## 2. SYLVESTRE. WOODY.

*Zinziber sylvestre majus, fructu in pediculo singulari.* Sloane, v. 1, p. 165, t. 105, f. 2. *Scapo florifero partiali aphylo, spica longiori.* Browne, p. 113.

Scapo naked; spike elongate, with oblong ventricose bractes; leaves broad-lanceolate.

This is called *great wild ginger*, and is frequent in the woods of Jamaica. The root is larger than that of the common ginger. The stalk grows from four to eight feet high, quite simple; and round, furnished with oblong leaves that decrease towards the top. The flowers grow on particular stalks, about two or three feet high, immediately springing from the root, jointed, and having each internode covered with a dry purplish membrane, coming from the under joint, and on its top a spike of flowers, four inches long, of a pale purple colour. Sloane says the juicy skin stains a brown colour, and has been used for ink. The leaves, stalk, and unripe fruit, smell pleasantly, when rubbed. The root is warm, and stimulates very gently; it is not much used, but may be very properly administered as a stomachic and alexipharmic, in case of need.

See WILD GINGER.

GRASS-WORT—See SALT-WORT.

GOAT

## GOAT FRIEND.

## AEGIPHILA.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Vitices*.

This generic name is derived from the Greek words for the English name, goats being fond of it.

GEN. CHAR.—The calyx is a one-leafed, bell-shaped, four-toothed, perianth, loose, very short, permanent; corolla one-petaled, salver-shaped, border quadrifid; the stamens are capillary filaments, inserted into the mouth of the tube, erect, with roundish anthers; the pistil has a roundish superior germ; style capillary, deeply bifid; stigma simple; the pericarp is a roundish two-celled berry, surrounded with the permanent calyx; seed either in pairs or solitary. Three species have been found in Jamaica.

## 1. BLATA. LOFTY.

*Knoxia* 2.—*Scandens, foliis cordato-ovatis venosis, pedunculis multipartitis alaribus*. Browne, p. 140, t. 3, f. 3.

Leaves elliptic, acuminate, membranaceous; panicles terminating; calyxes pubescent.

The segments of the calyx in this plant are coloured, and, being emarginated, appear as if they were octofid. Dr. Browne's figure is not a good one, in which the stamens are too short by half. It is a climber, and rises to the height of six or seven feet in the cooler mountains.

## 2. FOETIDA. STINKING.

Leaves ovate-lanceolate, beneath hirsute, as are also the petioles; peduncles axillary, solitary.

## 3. TRIFIDA. TRIFID.

Leaves ovate-lanceolate, smooth; peduncles axillary, trifid, crowded.

## GOAT RUE.

## GALEGA.

CL. 17, OR. 4.—*Diadelphina decandria*. NAT. OR.—*Papilionaceæ*.

GEN. CHAR.—Calyx a one-leafed perianth, tubular, short, half five-cleft; teeth subulate, nearly equal; corolla papilionaceous; stamens diadelphous filaments; anthers oblong; the pistil has an oblong slender germ; style slender, shorter than the germ, ascending; the stigma a very small dot at the end; the pericarp a very long legume, compressed, acuminate, scored with oblong streaks, between the seeds; seeds several, oblong, kidney-shaped.

## GINEREA. ASH-COLOURED.

*Herbacea sub-cinerea villosa, foliolis oblongis pinnatis, spicis laxioribus ad alas*. Browne, p. 289.

Legumes stiff, spreading; racemes-opposite to the leaves; pedicels solitary; leaflets villose underneath; stipules lanceolate,

This



This is a small herbaceous plant, somewhat of an ash-colour, seldom growing above eleven or twelve inches high. It is common among the bushes in all the savannas about Kingston. Browne calls it the *small herbaceous goat-rue*.

The *purpurea*, or purple galega, a native of the East Indies; the *pentaphylla*, or five-leaved; and *grandiflora*, or rose-coloured galega, a native of the Cape of Good Hope, have been introduced.

See RED BEAN TREE and SURINAM POISON.

GOAT-WEED.

CAPRARIA.

CL. 14, OR. 2.—*Didynamia angiospermia*. NAT. OR.—*Personata*.

This name is derived from the Latin word for a goat.

GEN. CHAR.—Calyx a one-leaved, five-parted; perianth; corolla one-petaled, bell-form, five-cleft, nearly equal, divisions acute; the stamens are subulate filaments, with cordate anthers; the pistil has a conical germ, a filiform style, and cordate stigma; the pericarp an oblong-conical capsule, bivalve, bilocular; seeds many, roundish. Two species are natives of Jamaica.

1. BIFLORA. TWO-FLOWERED.

*Erecta ramosa, foliis alternis ad apicem serratis, floribus singularibus alaribus, pedunculis tenuissimis.* Browne, p. 268.

Leaves alternate; flowers in pairs.

This is a shrub, seldom exceeding four feet in height; the branches long, somewhat woody, erect, roundish, sometimes slightly hirsute; leaves oblong, acuminate to both ends, serrate above, smooth, sessile, an inch and half long, in the shade near five inches in length; on sandy coasts succulent, thick, and brittle, as are also the calyxes. Peduncles one-flowered, slender, axillary; one or two, very seldom three, much shorter than the leaves. Flowers without scent; calyx smooth; very deeply five-parted; corolla white, the divisions hirsute at the base; anthers twin; germ ovate, furrowed; stigma headed, acute; capsule furrowed on both sides, the length of the calyx; seeds very small. Browne calls this the shrubby *capraria*, or goat-weed. It is very common in Jamaica, growing about most houses in the lower savannas, and thriving luxuriantly every where.

2. DURANTIFOLIA. LEAF-ENDURING.

*Veronica caule hexangulati, foliis satureiæ ternis, serratis.* Sloane, v. 1, p. 196, t. 124, f. 2. Phælypea.—*Erecta; foliis sessilibus, angustis, auritis, ad apicem serratis, oppositis vel verticillatis; floribus singularibus alaribus.* Browne, p. 269.

Leaves in three's, toothed; peduncles solitary; branches alternate.

Stem about a foot high, obtusely hexangular. Leaves two, three, or four together, in a verticillated order, sessile, lanceolate, serrate, quite entire towards the base, but toothed at the base itself. Branches shorter than the stem, simple. Flowers axillary, whitish grey; peduncles the length of the flower; calyx five-parted, leaflets lanceolate-acuminate; corolla ringent, tube the length of the calyx, upper lip erect, broader, emarginate.

emarginate, lower three-parted, equal. Stamens twin, the length of the calyx; stigma obtuse, two-lobed; capsule ovate, acute, two-celled; seeds many, roundish. Browne says it is very common in the road between Passage Fort and Spanish Town, and grows chiefly in those sloughs, where the mud has been worked up by carriages in the rainy seasons.

GOLDEN CUDWEED—See FLEA-BANES.

GOLDEN ROD—See HALBERT WEED.

### GOLDEN-ROD-TREE.

BOSEA.

CL. 5, OR. 2.—*Pentandria digynia.* NAT. OR.—

This was so named after Bose, a senator of Leipsic.

GEN. CHAR.—Calyx a five equal-leaved perianth, leaflets roundish, concave, erect, thinner at the edge; there is no corolla; the stamens five filaments, subulate, longer than the calyx, with simple anthers; the pistil has an ovate-oblong germ, cuspidate, no style, two stigmas; pericarp a globular berry, one-celled; seed one, round, acuminate. There is only one species, a native of Jamaica.

#### YERVAMORA.

*Tilia forte arbor racemosa, folio longiori subtus albicante nervis purpureis insignito, flore pentapetalo purpureo.* Sloane, v. 2, p. 19, t. 158, f. 3.

This is a pretty strong woody shrub, with a stem as large as a middling person's leg; the branches come out very irregularly, covered with a reddish brown, smooth bark; the wood white. Leaves two inches long, and one and a half broad, roundish, broader at the base, blunt at the end, white underneath, on short petioles; ribs purple. The flowers come out at the ends of the twigs, on alternate pedicels, at the base of which is a stipule. Calyx purplish, six-leaved; seed black. This tree may be propagated by cuttings.

### GOLDY LOCKS.

TRICHOMANES.

CL. 24, OR. 2.—*Cryptogamia filices.* NAT. OR.—*Filices.*

GEN. CHAR.—The fructifications are inserted into the margin of the frond, separate; involucre urn-shaped, undivided, opening outwards; columns extending beyond the involucre, like styles. The habit of these plants is membranaceous and semi-transparent. There are seventeen species natives of Jamaica.

*The following have simple fronds:*

1. MEMBRANACEUM. MEMBRANACEOUS.

*Phyllitis scandens minima musci facie foliis membranaceis subrotundis.* Sloane, v. 1, p. 74, t. 27, f. 1. *Simplex, repens, foliis erectis incisis, capsulis biphyllis.* Browne, p. 86.

Browne

Browne calls this the *small creeping trichomanes*, with dissected leaves. Sloane describes it as having a flat black stalk, covered with hair, applying itself to rocks, stones, or trees, and rising seven or eight feet high, putting out at more or less distance, small, roundish, membranaceous, yellowish-green leaves. They grow sometimes longer, having incisures on their edges. The plant looks somewhat like a moss. It was found on the banks of the Rio d'Oró and Orange River, in Sixteen-Mile-Walk, growing on trunks of trees.

2. PUSILLUM. DWARF.

Fronds simple, linear, gashed; shoot creeping.—Sw.

3. REPTANS. CREEPING.

Fronds cuneate-ovate; gash pinnatifid; shoot-creeping.—Sw.

4. ASPLENIODES. ASPLENIUM-LIKE.

Fronds pendulous-lanceolate, pinnatifid, very smooth; segments two-lobed; lobes obtuse; fructifications two-valved.—Sw.

*The following have compound fronds:*

5. CRISTATUM. HAIRY.

Fronds sub-pinnate, hairy; pinnae ovate, pinnatifid; segments bifid; sub-divisions blunt; fructifications bristle-bearing, on an upright rough-haired stipe.—Sw.

6. LUCENS. SHINING.

Fronds bipinnatifid, pendulous, lanceolate, hirsute, shining; pinnae parallel; segments roundish, sub-serrulate; stipe extremely hirsute.—Sw.

7. SERICEUM. SILKY.

Fronds bipinnatifid, pendulous, lanceolate, tomentose; pinnae alternate; segments linear-obtuse, entire, the lower ones bifid; fructifications terminating, hirsute.—Sw.

8. TUNBRIGENSE. TUNBRIDGE.

*Minor, repens, simplex foliolis oblongis sinuatis.* Browne, p. 86.

Fronds pinnate; pinnae oblong, dichotomous, decurrent, toothed.

9. FUCOIDES.

Fronds bipinnatifid, ovate, smooth; pinnae ovate; segments two-parted; sub-divisions serrate-obtuse; fructifications two-valved, inserted above the base of the pinnae.

10. CILIATUM. CILIATE.

Fronds erect, bipinnatifid, deltoid; pinnae ovate; segments linear-obtuse, ciliate; fructifications terminating, two-valved, rough-haired; stipe margined.—Sw.

11. LINEARE. LINEAR.

Fronds sub-bipinnate, pendulous, lanceolate, smooth; leaflets remote; pinnae linear, two-parted; fructifications terminating, two-valved; stipe capillary.

The following have a super-decompound frond:

12. UNDULATUM. WAVED.

Fronds tripinatifid, or bipinnatifid, pendulous, lanceolate; leaflets and pinnae alternate, decurrent; segments linear, retuse, crenulate-waved; fructifications terminating, two-valved.—Sw.

This species, as well as the ninth, tenth, eleventh, fourteenth, fifteenth, and sixteenth, belong to Dr. Smith's genus *hymenophyllum*.

13. SCANDENS. CLIMBING.

*Adiantum ramosum scandens, pinnulis seu foliis, oblongis, profunde laciniatis, pellucidis.* Sloane, v. 1, p. 96, t. 58. *Major scandens et ramosissimus, fronde tenuissime divisa.* Browne, p. 86.

Fronds super-decompound; leaflets alternate; pinnae alternate, oblong, serrate.

Browne calls this the larger climbing trichomanes, and very common in the woods of Jamaica; its numerous foliage often shoots above a foot from the climbing root or trunk of the plant. Sloane describes it as follows: "This has a stalk not so big as a goose-quill, roundish, black, covered towards its top with a ferruginous moss, and having very many filaments or clavicles, by which it takes firm hold of the barks of the trees, and rises to fifteen or twenty feet high, turning itself round. At every inches distance it puts forth leaves about a foot long, having about two inches of their footstalk naked. This footstalk afterwards divides itself into branches, sometimes set opposite to one another, but mostly alternately: the branches have their twigs, on which grows the pinnulae, or leaves, being long, deeply cut in on the edges, very thin, pellucid, of a yellowish-green colour, having some dark opaque ribs running through them, and a woolly hair on them, and the seed on the ends of their segments, in a little cup. It grew on trunks of trees."—Sloane.

14. RIGIDUM. RIGID.

Fronds four times pinnatifid, erect, deltoid; leaflets spreading; pinnae lanceolate; segments linear, gashed at the end; fruit-bearing cups pedicelled, axillary.—Sw.

15. POLYANTHOS. MANY-ANTHERED.

Fronds four times pinnatifid, deltoid, erect; pinnae and pinnules decurrent; segments linear-obtuse; fructifications two-valved, numerous; stipe margined.—Sw.

16. CLAVATUM. CLUB-SHAPED.

Fronds four times pinnatifid, oblong-lanceolate, loose; pinnae and pinnules decurrent; segments linear, emarginate; fructifications terminating, two-valved, roundish; stipe roundish.—Sw.

17. ACULEATUM. ACULEATE.

*Filix ramosa major, caule spinosa, foliis seu pinnulis rotundis, profunde laciniatis, seu scresfolii folius.*—Sloane, v. 1, p. 99, t. 61.

Frond super-decompound, scandent, very much branched; leaflets palmate; segments linear-obtuse; stipe prickly.—Sw.

This

This has a long root, towards the top covered with ferruginous hair or moss, at the bottom of which are several filaments or threads of a dark brown colour. From this root rise several footstalks, cornered on one side, and round on the other, of the brightness of a swan-quill, of a grey colour. The stalk is thick set with short sharp prickles, as well as the branches, which are opposite to one another, about six inches distant, the stalk rising three or four feet high. The twigs of the branches are alternate, on which stand the leaflets, which are roundish, deeply cut in on the edges, of a yellowish green colour, having the seed in little spots on the ends of the segments of the back side of the leaves.—*Sloane*.

See FERNS.

GOOMA—See CALALUE, branched.

### GOOSE-FOOT.

### AMARANTHUS.

CL. 20, OR. 5.—*Monoecia pentandria*. NAT. OR.—*Miscellanea*.

GEN. CHAR.—See Calalue, prickly, p. 142.

POLYGONOIDES. POLYGONUM-LIKE.

*Blitum polygonoides viride, seu ex viridi et albo variegatum, polyanthos.* Sloane, v. 1, p. 144, t. 92, f. 2. *Chenopodium*.—*Humile multiflorum, foliis maculatis ovatis, floribus racemosis alaribus*.—Browne, p. 184.

Glomerules three-leaved; female flowers funnel-shaped; leaves rhomb-ovate, emarginate.

Stem decumbent or ascending, branched at the base, round, streaked, red, and smooth; branches quite simple, diffused; leaves smooth, green, glaucous beneath, with a short, green, herbaceous point, below the incisure, more conspicuous in the younger than the older leaves; petioles green, channelled, surrounded at top with a leafy edge. Glomerules axillary, at the base of each petiole, with from six to eight flowers in each; bractes numerous, subulate, acuminate, mucronate, transparent-white, with a green nerve. Calyx of the female flower one-leaved, ventricose; the five segments spreading very much, blunt, transparent-white. When the seed is ripe the capsules fall with the calyx, which is then twice as long as the bractes. Calyx of the male three-leaved, the length of the bractes, membranaceous, transparent; the leaflets oblong-obtuse, with a green nerve. It varies in different situations. Sloane says each of the petals have a purple streak, and are of a pale green colour, and that the leaves are sometimes variegated with a large white spot; the seeds are compressed, blackish brown, and shining. This plant is frequently met with about Kingston and Spanish Town, where it rises from three to eight inches in height, and is sometimes gathered and used as a green.

*Goose-foot, or sowbane*.—This herb is so called for its killing (as it is said) hogs, or making a sow cast her pigs, the leaf resembling the membranous part of a goose or duck's foot. It grows very plenty in America, along the sides of highways, in yards, and

and in some streets. It is a strong rank weed, of a very cold and moist quality, even to poison, as some affirm. Matthiæus saith, it works upwards and downwards: But Lycus Neapolitanus gave it against the strangury, and inflammation of cantharides.—It is better outwardly than inwardly; for it makes a good pottitice or cataplasim, with hogs fat, against swellings and inflammations.—*Barham, p. 67.*

See CALALUE. prickly.

GOOSE-GRASS—See CROSS-WORT.

### GOURD.

### CUCURBITA.

CL. 21, OR. 1.—*Monoecia syngenesia.*

NAT. OR.—*Cucurbitaceæ.*

GEN. CHAR.—*Male flower*.—Calyx a one-leaved perianth, bell-shaped, the margin terminated by five subulate teeth; corolla deeply five-parted, growing to the calyx, bell-shaped; divisions heart-shaped, veiny, rugose; the nectary a gland in the centre of the flower, concave; triangular; the stamens three filaments, converging, connected above, distinct below, growing to the calyx; anthers creeping upwards and downwards, linear. *Female flower*.—Calyx a perianth as in the male, superior, deciduous; corolla the same; nectariferous glandule concave, spreading; stamens margin surrounding, ending in three very short cups; pistil has a large inferior germ; style conic, three or five cleft at the tip; stigma simple, with a thick convex margin, creeping upwards and downwards, three-cleft; the pericarp a three to five-celled pome, cells membranaceous, soft, distinct; seeds very many, compressed, swollen on the margin, obtuse, placed in double order.

#### LAGENARIA.

#### BOTTLE.

*Cucurbita tertia seu lagenaria, flore albo, folio molli.* Sloane, v. 1, p. 225. *Villasa, fructu pyriformi minori, foliis subangularis basi biglandulis.* Browne, p. 354.

Leaves somewhat angular, tomentose, biglandular at the base underneath; fruits woody.

The plants of this genus are very nearly allied to those of *cucumis*, and are distinguished from it chiefly by the swelling rim of the seed. The stems of this species are thick, long, climbing, with tendrils, branched, extending a great length, covered with a fine soft hairy down. The leaves cordate, roundish, repand, tooth-letted, petioled, alternate, biglandular underneath, soft, large. A leaf, tendril, and flower, come out at each joint, the joints six or eight inches distant. Flowers large, white, on long peduncles, solitary, lateral; corolla spreading, wrinkled, with acuminate divisions. Fruit of various shapes and sizes in the varieties, some being near six feet long, and two feet thick, having a ligneous shell, when ripe of a pale yellow colour. Seeds quadrangular, oblong, cut off and emarginate at top, three-cornered and beaked at bottom, edge keeled with a double raised line, smoothish, of a pale colour. This plant is found either cultivated or wild in most parts of Jamaica, where the shells of the fruit are generally used for water cups, bottles, &c. Browne says the decoction of the leaves is recommended much in purging clysters, and the pulp of the fruit often employed

ployed in resolute poultices: he adds, that it is bitter and purgative, and may be used instead of the common *coloquintida*. This plant is cultivated, however, chiefly on account of its shells, which are used by the negroes for many domestic purposes; and where aloes is manufactured, it is commonly preserved in these shells. Some of them are round, some crooked, some straight, some the shape of glass bottles, and of all sizes, holding from one pint to many gallons. Barham speaks of one that held nine gallons, which was perfectly round. The pulp and seed of all these fruits are bitter. The shells are cleared of the pulp and seeds by the negroes in the following manner: they make a hole at one end, into which they pour hot water, in order to dissolve the pulp, which is afterwards extracted with a stick, and the inside frequently rinsed with sand and water, in order to loosen and clear away the fibres that remain. They are then dried and fit for use, and contain water or other liquid for any length of time.

Barham and Sloane describe a sweet gourd, which the former says grows two or three feet long, as big as a man's thigh, is full of sweet pulp, that makes a pleasant sort of sweetmeat or preserve; he says the distilled water is good in fevers, and the pulp applied to the eyes abates their inflammation, and is good in other inflammations. Sloane says the seeds are diuretic, and, made into emulsions, temper and take off the acrimony of urine. He mentions one of these gourds as large as the human body.

See PUMPKIN—SQUASH—WATER MELON.

## GRANADILLA.

## PASSIFLORA.

CL. 20, OR. 4.—*Gynandria pentandria*.

NAT. OR.—*Cucurbitaceæ*.

GEN. CHAR.—See Bull Hoof, p. 123.

QUADRANGULARIS. FOUR-ANGLED.

*Folius amplioribus cordatis, petiolis glandulis sex notatis, caule quadrigono alato.*—Browne, p. 327.

Leaves oval, sub-cordate, smooth, many nerved; petioles glandular; stem membranaceous, four-cornered; stipules oval-oblong.

Stem almost simple; thick, membranaceous at the four corners. Leaves petioled, six to nine inches long, and from four to six broad, entire, somewhat rugged, but without any pubescence. Tendrils very long, axillary, halfway spiral. Stipules in pairs, ovate, at the base of the petioles, which are from one to two inches long, hollow above, having six glands, three on each side, two of them at the base of the leaf. Peduncles opposite to the petioles, thicker. Flowers very large, encompassed by a three-leaved involucre, the leaves of which are roundish, concave, entire, smooth, pale. Calyx five-leaved; leaflets broad-lanceolate, membranaceous at the edge, thick in the middle, somewhat spungy, very white within; petals of the same shape, but thinner, blunter, red within, white on the outside; crown five-fold; outer rays in a double row, longer than the petals, filiform, round, white and violet variegated; two inner also in a double row, very short, erect; inmost flat near the column of the germ; column straight, cylindrical, variegated; germ white; styles purple; stigmas black, bifid within; fruit very large, oblong, fleshy; the pulp purplish.—Sw.

This is the largest and most beautiful of the passion flowers, and frequently cultivated.

vated in Jamaica; of which it is a native, not only on account of its delicious sub-acid fruit, but for the formation of arbours, which it is well calculated for by its dense foliage, and highly ornamental flowers. It spreads to a considerable extent, and is easily propagated from slips. The fruit is of an oval shape, and of various sizes, from that of a goose's egg to a middling sized musk melon; it is of a greenish yellow colour, having a spongy rind, which becomes soft towards the end as the fruit ripens, about a finger in thickness, containing a succulent pulp of a watery colour and sweet smell, of a very agreeable pleasant sweet-acid taste, containing a multitude of black seeds, which are eaten along with the pulp. It is a pleasant cooling fruit in fevers. When the vine dies it is said to have an excellent yam at its root.

See BULL-HOOF—LOVE IN A MIST—PASSION FLOWERS—WATER LEMON.

GRAPE-FRUIT—See SHADDOCK.

GRAPE, JAMAICA—See JAMAICA GRAPE.

GRAPE, SEA-SIDE—See BAY-GRAPE.

### GRAPE-VINE.

### VITIS.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Hederaceæ*.

This generic name is derived from *vincire*, to bind.

GEN. CHAR.—Calyx a five-toothed, very small perianth; the corolla has five rude, small, caducous, petals, cohering at the top, and shrivelling; the stamens are five filaments, awl-shaped, from erect spreading, caducous; anthers simple; the pistil has an ovate germ, no style, stigma obtuse, headed; the pericarp is a globular two-celled berry; seeds two to five, bony, turbinate-cordate, contracted at the base, semi-bilocular.

### VINIFERA.

### WINE-MAKING.

Leaves lobed, sinuate, naked.

The common grape-vine is universally known to have a thick twisted irregular weak stem, covered with a brown cloven bark, and having very long tough flexible branches, trailing and climbing by means of tendrils. The leaves are lobed and sinuated, serrate, smooth, and alternate, on long footstalks; the tendrils are opposite to a leaf, and are attended by the flowers in a raceme, which are whitish or herbaceous, very small, but having an agreeable smell; the petals cohere at the tip, and conceal the genitals in manner of a veil, but soon fall off. The berry is globular, in some varieties ovate, before it is ripe regularly divided into five cells, but afterwards one-celled, almost pellucid, coloured in some, colourless in others; in the middle is a short column, springing from the woody fibres of the pedicel of the berry, to the top of which the seeds are fastened by its peculiar umbilical chord; this chord is filiform, running along the inner side of the seed to its very top, then reflected to the back, and finally entering the navel; seeds naturally five, but for the most part fewer. In some berries they are all abortive.

This plant is a native of most temperate parts of the world, and both the common and muscadine grape were long ago introduced into Jamaica, where they have been very generally cultivated, though not to any very considerable extent, though Browne justly



justly observes, they thrive and ripen as well here, and would produce as rich and mellow wine, as in any part of the world, and the island affords a number of other fruits to enlarge the quantity, and enrich the flavour of the juice. The muscadine succeeds the best, and, in the lower lands, ripens all its berries nearly at a time, having very large clusters of the fruit, frequently from eight to ten pounds weight; the pulp of which has been found less watery, and more fleshy, than in the south of France. Of grapes, there have been enumerated more than fifty varieties in Europe. Grape vines, in a favourable situation, produce most abundantly. There is a famous vine in a grape house, on the south-side of Hampton Court palace, planted in the year 1769, the stem about thirteen inches in girth, and the principal branch one hundred and fourteen feet in length, which produced in one year two thousand two hundred bunches of grapes, weighing on an average a pound each.

Grape vines are propagated either from layers or cuttings; the latter is however preferable. In choosing cuttings, they should be strong and well ripened, and cut from an old vine just below the place where they were produced, taking a knot, or a piece of two years wood, to each, which should be pruned smooth; then you should cut off the upper part of the shoots, so as to leave the cutting about sixteen inches long. When the young piece, or knot of old wood, is cut at both ends, near the young shoot, the cutting will resemble a little mallet; from whence Columella gives the title of *malleolus* to the vine cuttings. In making the cuttings after this manner, there can be but one taken from each shoot; whereas most persons cut them into lengths of about a foot, and plant them all; which is very wrong, for various reasons.

The plants may be placed about six feet from each other, and laid with their tops inclining to the wall, and put in so deep that the uppermost eye may be level with the surface of the ground; for when any part of the cutting is left above ground, most of the buds attempt to shoot, so that the strength of the cuttings is divided to nourish so many shoots, which must consequently be weaker than if only one of them grew; whereas, by burying the whole cutting in the ground, the sap is all employed on one single shoot, which consequently will be much stronger; besides, the sun and air are apt to dry that part of the cutting which remains above ground, and so often prevents their buds from shooting.

Having placed the cutting into the ground, fill up the hole, pressing down the earth close about it. Nothing more is necessary but to keep the ground clear from weeds until the cuttings begin to shoot; at which time you should look over them carefully, to rub off any small shoots, fastening the first main shoot to the wall, which should be constantly trained up, as it is extended in length, to prevent its breaking or hanging down. They must be frequently looked over, constantly rubbing off all lateral shoots which are produced; and be sure to keep the ground clear from weeds, which, if suffered to grow, will exhaust the goodness of the soil, and starve the cuttings. After this they will require no care till they begin to shoot, when you should rub off all weak dangling shoots, leaving no more than the two produced from the two eyes of the last year's wood, which should be fastened to the wall or arbour.

When the fruit is all gathered, vines should be pruned, which forwards the succeeding crop. Vines rarely produce bearing shoots from wood more than one year old; and great care should be taken in pruning to leave plenty of this wood. The bearing shoots should be left with four eyes each; if more are left the fruit will be poor. The cut should be made just above the eye, and sloped backward from it, that, if it bleed, the juice may not run upon the bud. When the vines are shooting, all the shoots from

from the old wood should be rubbed off. It has been observed, that, in Jamaica, grape arbours are generally raised too high from the ground, and that they should not be above two or three feet high, as the fruit requires a considerable degree of reflected heat to ripen it regularly. In Madeira the best vines are cultivated on slopes within two feet of the earth. The grape thrives best in a light sandy loam. If the soil be strong and inclinable to wet, they do not succeed so well. The leaves of the grape are eaten by goats. The following observations on the economical uses to which the leaves and stalks may be applied, are taken from a letter in the *Philosophical Magazine*, No. 112, signed James Haul:

"From experiments which I have made, I find that, on being dried, which should be done in the shade, and infused in a tea-pot, the leaves of the vine make an excellent substitute for tea. I have also found, that on being cut small, bruised, and put into a vat, or mashing tub, and boiling water poured on them in the same way as is done with malt, the prunings of the vine produce a liquor of a fine vinous quality, which, on being fermented, makes a very fine beverage, either strong or weak, as you please; and, on being distilled, produces an excellent spirit of the nature of brandy.

"In the course of my experiments, I found, that the fermented liquor from the prunings, particularly the tendrils, when allowed to pass the vinous and to run into the acetous fermentation, makes uncommonly fine vinegar. If not intended to be distilled soon after they are lopped off, or if it should not be convenient to do so at the time, they should be dried in the shade. When intended to be used, an extract should be made with hot water, as in the common process for distilling from grain."

See JAMAICA GRAPE.

## GRASSES.

Of this most useful and numerous tribe of plants, which Providence has so abundantly scattered over the whole earth, Jamaica is blessed with as great a variety as any country of the same extent in the world, as well indigenous as exotic. The different kinds are described under their familiar names, and may be referred to as follow:

See BEARDED, BENT, BURR, CRUCIATED, DOG'S-PAIL, FEATHER, GUINFA, HARD, KYLLINGIA, LEERSIA, LEMON, MEADOW, MELIC, MILLET, MOREA, MOUNTAIN, MOUNTAIN-REED, PANIC, PEPPER, ROTTROELLIA, RUNNING, SCOTCH, SILK, TREMBLING, TRIPSACUM, TURTEE, and WORM, GRASSES.

## GREAT CORN, or INDIAN MAIZ.

ZEA.

CL. 21, OR. 3.—*Monocotyledon triandrum*. NAT. OR.—Gramina.

GEN. CHAR.—Male flower disposed in distinct spikes.—Calyx a two-flowered glume, two-valved; valves ovate-oblong, ventricose, awnless, acuminate, outer a little longer; corolla a two-valved glume, valves oblong, awnless, almost the length of the calyx; outer ventricose, obtuse; inner, two-toothed at the top. The nectary two-leaved.

two-leaved, leaflets fleshy, wider above, truncate, grooved at the top, very short; the stamens are three capillary filaments; with anthers sub-prismatic, bifid, opening at the top. The females in a very close spike below the males, on the same plant, covered with leaves; calyx a one-flowered glume, two-valved, permanent; valves roundish, thick, membranaceous at the edge, ciliate, outer thicker; corolla a four-valved glume, valves unequal, membranaceous, hyaline, wide, short, permanent; the pistil has a very small germ; style filiform, longest of all, pendulous; stigma simple, pubescent towards the tip; there is no pericarp; the common receptacle is very large, long, five-cornered, marked with five rows of transverse excavations, in each of which two fruits are immersed, surrounded with their proper calyx and corolla; seeds solitary, roundish, angular at the base, compressed, longer than the glumes, pedicelled. There is only one species, of which there are three varieties.

## MAYS.

*Frumentum indicum mays dictum.* Sloane, v. 1, p. 105. *Seminibus sub-compressis obovatis.* Browne, p. 335.

This has a very large strong stalk, growing frequently ten or twelve feet high. The leaves are long, broad, hang downward, and have a broad midrib. The stalk is jointed. The male flowers are in branching spikes at the tops of the stalks, eight or ten inches long: the females come out from the bottom of the leaves, on the side of the stalk, disposed in a close, long, thick, spike, and are covered closely with thin spathes or sheaths; out of the end of these covers hangs a small long bunch of threads. The ear of the maize yields a great quantity of grain. There are commonly from twelve to sixteen rows of corn in the ear, containing from two hundred to two hundred and forty grains, and, there being frequently three ears on one stem, it is a wonderful increase from one seed. The grains are usually of a yellow colour, but sometimes the ears are variegated with some red, blue, black, or striped grains. It is generally planted by making small holes in the ground with pegs, at about two feet distance each way, and two or three grains are put into each hole, and from four to five months afterwards the corn is fit to be reaped. Though it may be planted at any time of the year, when there is rain, yet the spring is by far the best season.

It is commonly cultivated throughout Jamaica, but thrives most luxuriantly, and bears the largest grain, in the richer soils, and where the seasons are favourable. It is a hearty wholesome food among the negroes, who make it into various messes, according to their fancy. It is given to horses and mules, instead of oats, and to sheep and poultry, in order to fatten them. It was probably brought from Guinea, where it is said to require a hilly good soil, not subject to be overflowed; whereas the rice and millet thrive best in low moist grounds. It is generally planted here a little before the usual periods of the rainy seasons, though some plant it indifferently at any time, and frequently fail; but it is usual to get two crops in the year. It is laid in rows, at the depth of three or four inches. As soon as it appears six inches above the surface, it is weeded; and, when grown to a tolerable height, the earth is moulded up about the roots. The ears are often gathered before they are thoroughly ripe; and, being roasted, form a dish known here by the name of *mutton*. The stalks are full of a saccharine juice, from which a syrup may be made as sweet as sugar. These stalks are an excellent hearty fodder for cattle, and may be stacked like those of the Guinea corn,

for provision in times of drought. This plant is thought to impoverish land; and, considering the rich juices of the stalk, and greatness of yielding, it undoubtedly requires as good and strong a soil as the sugar cane: for this reason, those planters are much blamed who cultivate it on the banks between their young canes; for the use of these banks being to be drawn down, and apply nourishment to the canes in the course of their growth, they are too much exhausted by the maize, which seems to absorb and extract nutriment from the same vegetable principles as the sugar cane; and it must consequently rob them of a great part of that food of which they are in want, especially in the poorer well worked lands; though the objection is so far from lying against rich fresh soils that it may be very serviceable to such, and assist to drain away that superfluity of the vegetative principles which throws up too rank and luxuriant a cane. This opinion is strengthened by a common observation, that the maize corn will not thrive well in soils where the sugar cane will not thrive. But I have seen fine corn produced in a very poor exhausted piece of ground, by laying manure with every seed or grain; and, in North America, near the sea coast, the Indians used to put two or three dead fishes under or adjacent to each corn hill; and by this means gained double the crop they would otherwise have got. The English then learned the same husbandry during the fishing-stages, where they could procure the heads and garbage of cod-fish, in abundance, at no charge but the fetching.

This corn does not make good bread by itself; but, if the flour of it is mixed in the proportion of one pint to three-pints of wheat flour, it will answer for common use.—The dough made with it is very heavy, and fermented with difficulty. The negroes parch and grind it into powder, sometimes mixing a little sugar with it. They esteem it a dainty, and particularly convenient in a long journey; but the more common way of using it is in puddings, after it has been well pounded in a wooden mortar.

All creatures fed with this corn have firm fat flesh. The pork of corn-fed hogs is esteemed the finest in the world for flavour and goodness; the horses, cattle, and mules, foddered on the leaves and husks, are hardy, and enabled to go through the greatest degree of labour; and the people, who make the grain a principal part of their diet, are healthy, strong, and active.

The ears of it, while it is growing, are said to be greatly hurt by cutting off the panicles or beards too late. They ought to be cut before the hoods, or husks open; and by leaving a plant with its male ears at every twenty feet distance, all the female plants will be impregnated.—*Long, p. 762.*

This corn does not keep either on the ear or off it so well as Guinea corn, being very liable to be attacked by the weevil. Mr. Beckles, of the Agricultural Society of Barbadoes, lately laid before that body the following method of preserving it:

“In the month of October he put into two jars, several ears and pints of Indian corn; into one of the jars he sprinkled over the corn a mixture of camphor and black pepper; both the jars were tied down, in such a way as to exclude all air. In the May following he opened the jars: the one without the composition was entirely destroyed; the one with perfectly good, and grew after being planted. The quantity of camphor was about six drachms, and a table spoonful of pepper.”

GREENHEART—*See COGWOOD.*

GREEN

GREEN WITHE.

EPIDENDRUM.

CL. 20, OR. 1.—*Gynanthria diandria*.

NAT. OR.—*Orchidæ*.

This generic name is derived from two Greek words signifying growing upon trees.

GEN. CHAR.—Calyx vague spathes; spadix simple, no perianth; the corolla has five petals, oblong, extremely long, very spreading, no spur; the nectary is turbinate, tubular at the base, top-shaped, placed downwards with the petals, with an oblique two-cleft mouth; the superior lip very short, three-cleft; the inferior lengthened into a point; the stamens are two filaments, very short, sitting on the pistil; anthers covered by the upper lip of the nectary; the pistil is a slender germ, long, twisted, inferior; style very short, fastened to the upper lip of the nectary; stigma obscure; the pericarp is an extremely long silique, columnar, fleshy; seeds numerous, extremely small. There are a great many species of this genus, fifty-two of which have been discovered in Jamaica, most of them parasitic plants, growing on trees. The green withe is the

1. CLAVICULATUM. TENDRILLED.

*Cerio affinis scandens planta aphylla caule rotundo, articulato, glabro succulento saturati viridi.* Sloane, v. 2, p. 160, t. 224, f. 3, 4.

Stem climbing, round, branching; leaves sessile, half-stem clasping, acute, concave, recurved, rigid.

This plant hangs down from the branches of trees, and creeps up others to the height of forty feet, having many clavicles, jointed, or made up of leaves, going one out of the other. The stalk is about three-fourths of an inch in diameter, very smooth without, deep green, coloured, round, jointed or notched at every five inches distance; from each joint comes the clavicle, three or four inches long, catching hold by its broad viscid end of any thing it comes near. Opposite to this comes another as long clavicle or leaf, thin and membranaceous, from a broad beginning ending in a point. The stem is solid, juicy, and sometimes branched; I never observed leaves. The juice of this plant, either alone, or mixed with proper ointments, rubbed on the part, relieves from old pains and aches; but occasions great pain and itching.—*Sloane*. Barham says that persons who have lost the use of their limbs, by the nervous cholera, take its root and roast or boil it over the fire, bruising it, and applying it, which gives ease and strengthens the limbs; and that if you put a piece of the root into any liquor, it sets it a fermenting immediately; which is also the case with the chaw-stick. This plant has also been used as sarsaparilla; and boiled and given to hogs is a fattening food. Its juice, to the quantity of a pint, is an excellent purge for a horse, and makes him thrive beyond any other purge. The following observations are from Dr. W. Wright: "This plant is found on gravelly or rocky lands, it runs or creeps on the ground, taking root here and there in its progress. The stem is as thick as a man's finger, round, green, and succulent; it is jointed at every twelve or fourteen inches, and is several yards long, without leaves. The flowers are large and yellow; the pods two inches long. On viewing the expressed juice with a glass, or the naked eye, we find it full of long spiculæ or hairs. Dr. Drummond, a learned and ingenious physician and botanist in Westmorland, who first shewed me this plant, assured me that he had often given a table spoonful of the juice as a safe and effectual vermifuge; and that in

X x 2

some

some species of dropsy it promotes a flow of urine, and cures the disease. The juice is in great esteem amongst the negroes for the cure of gonorrhœa and lues venerea."

The following species of this genus are also natives of Jamaica :

*With upright leafy stems.*

## 2. SECUNDUM.

Leaves on the stem oblong, emarginate; stem compressed; spike directed one way; tube of the nectary length of the corolla.

This is parasitical, having fibrous white roots, stem round at bottom, gradually compressed, leafy, pendulous; leaves sessile, sheathing, alternate, spreading in two rows, the outermost tip emarginate, veinless; peduncle scape-form, often two feet long, terminating, compressed, jointed as it were by the deciduous sheaths; flowers terminating in form of a corymb, nodding one way, pale red or brown; spathes minute; three of the petals ovate-lanceolate, spreading, two linear, bent down; nectary longer than the petals; lip three-lobed, the middle lobe emarginate, ascending, spreading, the side ones smaller, emarginate; column short, bifid at the tip, bearing two pedicelled anthers under a two-celled lid, and concealed within the tube of the nectary; stigma in front funnel-form; capsule oblong, angular, three-valved. It varies with a rounder and more compressed stem; leaves broader or more acuminate; flowers terminating or breaking out on the side, and tube of the nectary shorter or longer than the petals.—It grows in mountainous woods.—Sw.

## 3 LINEARE. LINEAR.

Leaves on the stem distich, linear, obtuse, emarginate; stem simple; flowers terminating, in a sort of spike, lip entire.

Parasitical. Roots filiform, creeping, strict, white; stems simple, heaped, tufted, from one to two feet long, erect, filiform, leafy, compressed a little, smooth; sheaths radical, withering, whence the stems appear to be jointed; leaves alternate, approximating, sessile, sheathing, slightly streaked, smooth on both sides; sheaths of the leaves compressed; spike scarcely the length of the leaves; flowers sessile, alternate, imbricate, from six to ten, small and blood-red; spathes sheathing, under the flowers, coloured; corolla three-cornered, gibbous at the back; the three outer and the two inner petals almost equal, oblong, concave, blunt, the two outer in front vaulted, compressed at the tip. Nectary of the same shape as the inner petals, erect, embracing the column at the base, having two dark purple spots on the edge, concave, blunt at top, blood red. Column shorter than the petals, gibbous at the back, with three teeth at the tip, bearing in a cavity four oblong pedicelled anthers, closed by a four-celled lid, hollowed in front for the stigma; capsule oblong, three-valved, opening in the middle; seeds extremely minute, dusty, and bristly. It is a native of thick mountain woods.—Sw.

## 4. NOCTURNUM. NIGHT.

Leaves oblong, veinless; lip of the nectary three-parted, quite entire, the middle segment linear; stem many-leaved.

Roots round, thick, filiform, whitish; stem from one to two feet high, simple, erect, round, leafy, smooth. Leaves sheathing, alternate, sub-distich, from two to three inches long, oblong, entire, thickish, veinless, shining. Flowers terminating, two-

or three, sessile, large, whitish yellow; spathes a few, ovate, compressed; petals almost equal, lanceolate-linear, spreading, the two inner narrower and white. Tube of the nectary compressed, gibbous, shorter than the petals; lip trifid, the lateral segments entire, the middle longer, erect, subulate-linear. Column inclosed within the tube of the nectary, gibbous, having at the top four pedicelled, obovate, compressed anthers, under a four-celled cover. Capsule oblong, attenuated at the base, three-cornered, three-valved, opening in the middle; seeds resembling saw-dust. It grows in mountain woods, and smells very sweet during the night.—Sw.

5. RAMOSUM. BRANCHY.

Stem very branching, suffrutescent; leaves linear, emarginate; racemes terminating, compressed.

This grows a foot and a half high, leafy, parasitical, with fibrous roots; branches compressed a little, smooth, ash coloured; leaves oblong, obtuse, coriaceous, rigid, veinless, entire, shining, sheathing at the base, dirty green, alternate, an inch and half long. Spathes cordate-ovate, acute, converging; spikes loose, distich, an inch and a half long, four-flowered or thereabouts; flowers small, inelegant, greenish; petals somewhat rigid, equal in length, the three outer lanceolate, the two inner linear. Lower lip of the nectary oblong-cordate, acuminate, concave, rigid, the length of the petals, of which it occupies the place of the third interior one; anthers roundish; germ a little longer than the corolla. The rest as in *lineare*.—Jacquin.

6. NUTANS. NODDING.

Stem simple; leaves ovate-lanceolate, nerveless, stem-clasping; spike terminating, nodding; lip of the nectary three-lobed, the middle lobe three-toothed.—Sw.

7. UMBELLATUM. UMBELLED.

Stem simple; leaves ovate, emarginate, stem-clasping, veinless; flowers terminating, umbelled.—Sw.

8. ANCEPS. DOUBLE-EDGED.

Leaves cordate-lanceolate, stem-clasping, horizontal; raceme terminating, compressed, ancipital, sub-flexuose; flowers distich, inner petals capillary, with a three-lobed lip.—Sw.

9. RIGIDUM. RIGID.

Leaves oblong, obtuse, sheathing; raceme terminating, compressed, ancipital; flowers distich, larger than the spathes, lip entire, cordate-ovate, acute.—Sw.

Parasitical, a foot high; roots fibrous, ash-coloured, round, numerous; stems simple, round, leafy, ending in a very loose distich spike, four-flowered or thereabouts. Leaves coriaceous, rigid, shining; spathes very large, coriaceous, rigid, almost the length of the flowers, which are inelegant, small, rigid, and thick; petals spreading very much, the three outer ovate, the two inner lanceolate, and a little shorter. Lower lip of the nectary cordate-roundish, blunt, with a small point, flat, upright, the length of the petals, with a toothlet on each side at the base; anthers purple; germ oblong, incurved, three-cornered. The rest as in *lineare*.—Jacquin.

10. DIFFUSUM.

## 10. DIFFUSUM. DIFFUSED.

Leaves oblong, stem-clasping; stem ancipital; panicle terminating, very much branched, diffused, lip entire, acuminate.—Sw.

## 11. MONTANUM. MOUNTAIN.

Leaves lanceolate, flat, recurved, spreading, sub-membranaceous; raceme terminating, simple; flowers pointing one way, lip trifid.—Sw.

## 12. SERRULATUM. SERRULATE.

Stems aggregate, sub-diphyllous; leaves lanceolate, keeled, serrulate; raceme terminating; flowers distich.—Sw.

## 13. TERRETIFOLIUM.

Leaves semi-cylindric; stem one-flowered; lip three-sided at the tip.—Sw.

## 14. GLOBOSUM. GLOBULAR.

Leaves cylindric, channelled; flowers terminating, sub-solitary, lip ovate, acute; capsules globular.

Roots fibrous, round, ash-coloured, numerous, parasitical; stems cespitose, quite simple, two or three inches high, round, smooth, leafy, ending in a spadix bearing one-flower, seldom two, very seldom three; whence there are very few spathes.—Leaves awl-shaped, acute, smooth, shining, somewhat rigid, sessile, alternate, an inch long. Flowers small, scarcely coloured, erect, of the same structure with the *lineare*, except that the germ is twice as long as the petals; capsule six-grooved, the size of a small pea.—Jacquin.

*The following have creeping stems:*

## 15. SERTULARIOIDES.

Stem filiform, creeping, jointed; leaves lanceolate; peduncles one-flowered, from radical sheaths.—Sw.

## 16. TESTEFOLIUM. SHELL-LEAVED.

Stem creeping; leaves incumbent, elliptic, concave, convex, keeled; flowers sessile under the leaves.

*The following are stemless, with radical leaves:*

## 17. UNDULATUM. WAVED.

*Viscum radice bulbosa majus et elatius, delphinii flore, ferrugineo guttato.* Sloane, v. 1, p. 250, t. 148, f. 1. *Parasiticum, foliis oblongis radicalibus maculatis, scapo assurgenti longo sarmentoso nudo ad apicem ramoso, floribus miscellis.* Browne, p. 326.

Leaves elliptic, acute; scape sarmentose, very much branched; petals ovate, clawed, obtuse; lip dilated, emarginate, waved.

This is also parasitical, and the largest of the kind. Roots large; leaves many, long, narrow, smooth, dark green, somewhat like those of the common white lilly. Stalk round, tough, brown, crooked, six feet high, with joints at every eight or nine inches distance, where are branches standing straight out, with several flowers with peduncles



an inch long. Petals ferruginous, spotted, spoon-shaped, one petal of a white colour; the stamens yellow.—*Sloane*. Browne calls this the *large sarmentous satyrium* with mottled flowers, which he says is a beautiful species, with flowers like so many little patches of Dutch calicoes with a dark ground; he adds that he found it pretty frequent near the Ferry, but could not observe it in any other part of the island.

18. UTRICULAROIDES.

Leaves lanceolate, marked with lines, flat; scape panicled, lip large, heart-shaped, horn very short.—*Sw*.

19. TRIQUETRUM. THREE-SIDED.

Leaves three-sided, cultrate, compressed at the tip, lanceolate, acute; scape simple; lip heart-shaped, ovate; sides emarginate.—*Sw*.

20. SESSILE.

Leaves compressed at the base, broader at top, lanceolate-linear, obtuse, veinless; peduncles radical, very short, one-flowered.—*Sw*.

21. FLABELLIFORME.

Leaves compressed at the base, dilated at top, ovate-lanceolate, acute, flat, nerved; peduncles one-flowered, elongated.—*Sw*.

22. SUBULATUM. SUBULATE.

Leaves awl-shaped, grooved; peduncles sheathed, radical; many-flowered.—*Sw*.

23. TRIBULOIDES. TRIBULUS-LIKE.

Leaves pedicelled, lanceolate, obtuse, emarginate; peduncles very short; capsules globose, echinate.—*Sw*.

24. CORNICULATUM. HORNED.

Leaves pedicelled; wedge-shaped, oblong; peduncles radical, one-flowered; corollas acuminate, curved.—*Sw*.

25. LANCEOLA. LANCEOLATE.

Leaves pedicelled, lanceolate, acute; peduncles, from radical sheaths, two-flowered.—*Sw*.

*The following have leaves growing on the bulbs:*

26. ANGUSTIFOLIUM. SMALL-LEAVED.

Leaf linear, growing upon the bulb; scape panicled.—*Sw*.

27. PALMIFOLIUM. HAND-LEAVED.

Leaves broad-lanceolate, nerved, membranaceous, growing on the bulb; peduncles radical, sheathed, many-flowered; nectary boat-shaped; entire, reflex.—*Sw*.

28. ALTISSIMUM. HIGH.

Leaves lanceolate, growing on the bulbs; scape very much branched, sarmentose; petals oblong, lanceolate-acute; lip ob-cordate, shorter than the petals.—*Sw*.

*This*

This is an elegant parasitical plant. Roots round, fibrous, ash-coloured, numerous, leaves acute, ensiform-oblong, veinless, shining, quite entire, thickish, an inch wide, and half a foot long, keeled at the base, in other parts flat, each springing from a joint, or ovate-compressed, smooth, tuber, sometimes as big as a goose's egg, which is placed at the base of another root-leaf or two, like the others. Between this and the joint arises a solitary, round, smooth, scape, of a rust colour, slender, inclined, four feet high, racemed at top, clothed at the peduncles and joints with membranaceous, lanceolate, ash-coloured spâthes. Peduncles two or three-flowered, alternate in two rows; flowers without scent, yellow with brown spots, numerous: petals oblong, distinct, acute at both ends, waved, nearly equal. The middle segment of the lower lip of the nectary is squarish, and the whole is yellow, without spots.—*Jacquin*.

## 29. FRAGRANS. FRAGRANT.

Leaves broad-lanceolate, nerveless, growing on the bulb; scape many-flowered, abbreviated; lip heart-shaped.

## 30. SANGUINEUM. BLOOD-COLOURED.

*Viscum radice bulbosa minus, delphinii flore rubro specioso.* Sloane, v. 1, p. 260, t. 121, f. 2. *Parasiticum; foliis paucioribus, radicalibus, scapo simplici, sub-squamosa, spicato; nectariis adnatis*—Browne, p. 324.

Leaves in pairs, oblong, growing on the bulb; scape many-flowered, sub-flexuose; lip roundish, waved, emarginate, horned.

This has many thick white fibres, like those of leeks, or the tendrils of ivy, taking firm hold of the bark of trees, and matted together: these send up one thick, greenish, roundish, compressed, bulbous or tuberous leaf, of an inch diameter, covered with some brown withered filaments. From the top of this come two smooth, striated, hollow, hard, pale green, leaves, three inches long and one broad, between which springs out a naked, brown, jointed, round, smooth, stalk, about a foot high, near the top of which stand several long reddish purple flowers, very beautiful. It grows on ebonyes and other trees in the savanna woods plentifully.—*Sloane*. Browne calls it the parasitical *satyrium*, with red flowers and bulbous roots, and observes that it is one of the most beautiful species of this tribe, growing indifferently on trees and rocks in the lowlands, seldom rising above twelve or fifteen inches.

## 31. POLYBULBON. MANY-BULBED.

Stem creeping, bulb-bearing; bulbs two-leaved, one-flowered; flower peduncled; lip heart-shaped.—*Sw*.

## 32. PROLIFERUM.

Caulescent; leaves distich, sub-imbricate, ovate; bulbs, from the sheaths of the leaves, two-leaved; flowers axillary, sessile.—*Sw*.

## 33. VESTITUM. CLOTHED.

Stem leafless, imbricate all round with sheaths, roundish, bulb-bearing; bulbs growing on the leaf; flowers crowded from the sheaths of the stem.—*Sw*.

## 34. VOMIFORME.

## 34. VOMIFORME.

Caulisocopt; leaves growing on the bulbs, ovate-acuminate, convex, channelled, three-sided beneath; scapes from the bosom of the leaves.—Sw.

*The following have creeping stems and imbricate leaves:*

## 35. ECHINOCARPON.

Stem compressed, decumbent, one-flowered; leaves imbricate all round, distich, ovate; capsules muricate.

Roots small, branched, fibrous; stems pendant, simple; leaves alternate, numerous, small, reflex, quite entire, sub-tomentose, stem-clasping; from the axils of the leaves flowers solitary, on very short peduncles. Corolla of a coral red colour, the upper and the two lower petals of the same size and figure; the two lateral ones longer and wider; nectary small, three-lobed, the two upper lobes rounded and concave, the lower emarginate; capsule red, ovate, warted. It grows on the trunks of old trees, which are sometimes covered with it.

## 36. TRICHOCARPON.

Stem compressed, round, rooting; leaves imbricate all round, distich, linear; capsules tomentose.—Sw.

## 37. GLAUCUM. GLAUCCUS.

Stem compressed, almost upright, many-flowered; leaves imbricate all round, distich, broad-lanceolate, very smooth, glaucous beneath; capsules naked.—Sw.

## 38. GRAMINOIDES. GRASS-LIKE.

Stem erect, compressed, many-flowered; leaves imbricate all round, distich, remote, linear; peduncles longer.—Sw.

*The following have one-leaved stems:*

## 39. MICRANTHUM.

Stem one-leaved, leaf broad-lanceolate; raceme very long, filiform; flowers pointing one way, roundish, six cornered.

## 40. TRIGONIFLORUM. THREE-CORNERED FLOWERS.

Stem one-leaved, leaf oblong-lanceolate; raceme the length of the leaves; flowers mostly pointing one way, three-cornered.

This little parasitical plant is only about four inches high; roots fibrous, whitish, numerous; leaf cauline, acute, quite entire, coriaceous, rigid, veinless, flat, shining, two or three inches long. From the sinus of this come out successively three or four spadixes, racemed, simple, slender, erect, a little longer than the leaf, having about ten flowers, and closed at the base with a few spathes, and small floral ones. Flowers small, directed all to the same side, without scent, on short peduncles, of a dirty yellow colour. Native of the mountain woods.—Sw.

## 41. RACEMIFLORUM. RACEME-FLOWERED.

Stem one-leaved, leaf ovate; raceme longer than the leaf; flowers pointing one way; inner petals ovate.—Sw.

## 42. LAXUM.

## 42. LAXUM. LOOSE.

Stem one-leaved, leaf oblong; raceme the length of the leaf; inner petals awl-shaped; lip ovate; capsules naked.—Sw.

## 43. OVALE. OVATE.

Stem one-leaved, leaf ovate, acuminate; raceme pressed close, many-flowered; petals roundish, the inner ones remote in front at the base; capsules pedicelled.—Sw.

## 44. PULCHELLUM. BEAUTIFUL.

Stem one-leaved, leaf roundish, acute; raceme loose, few-flowered; petals acuminate, ciliate, the inner one crossed at the tip.

## 45. TRIDENTATUM. THREE-TOOTHED.

Stem one-leaved, leaf ovate-acute, three-toothed at the tip; raceme many-flowered; flowers three-sided, acuminate; petals of the nectary erect, bowed inwards.

## 46. COCHLEARIFOLIUM. SPOON-LEAVED.

Stem one-leaved, leaf orbiculate, concavo-convex; raceme few-flowered.

## 47. FUNALE. CORDED.

Leafless, filiform, rooting; peduncle two-flowered; lip two-lobed; horn very long, awl-shaped.

## 48. RUSCIFOLIUM. RUSCUS-LEAVED.

Stem one-leaved; flowers, from the sinus of the leaf, aggregate.

Roots numerous, filiform, rigid, whitish; stems aggregate, often united at the base, filiform, a foot high, erect, sheathed, smooth; leaf terminating, ovate-lanceolate, half the length of the plant, acuminate, entire, keeled, channelled at the base, compressed, smooth, thick, veined. Sheaths of the stem long, acuminate, streaked, withering; peduncles short, two-flowered. Common spathe ovate, acuminate, compressed, gaping, emitting peduncles that are bent down, with nodding flowers, of a pale green colour. Corollas small, acuminate, four-petaled; the two outer petals, which are the upper and lower, opposite, lanceolate, acute, patulous; the two inner lateral, linear, shorter, erect; nectary of the same shape with the inner petals, but less, erect, channelled, pale; lip obtuse, recurved. Column of the fructification round; at the top, in a hollow, two roundish anthers, covered with a two-celled lid. Capsules ovate, small, acuminate, six-grooved, three-valved. Native of the high mountains, on the trunks of old trees.—Sw.

*The following have naked scapes and radical leaves:*

## 49. GUTTATUM. SPOTTED.

*Viscum delphinii flore albo guttata minus, radice fibrosa.* Sloane, p. 1, p. 251, t. 148, f. 2.

Leaves lanceolate, channelled; petals wedge-shaped, retuse.

From a matted root this sends out several leaves, three inches long and not a quarter of an inch broad, almost triangular, and of a yellowish green colour. From the midst

of these comes the flowering stalk. Each flower is made up of four little white petals, spotted with brown, and one large one, with fewer spots, on which is a small yellow hood, and opposite to it one like it of a blue colour, on pedicels an inch long, round the top of the stalk. It grows on ebonies.

## 50. NODOSUM. KNOTTY.

*Viscum delphinii flore minimum.* Sloane, v. 1, p. 251, t. 148, f. 3.

*Parasiticum, folio singulari longo sinuato; spica assurgenti, ab infimo sinu orta.* Browne, p. 325.

Leaf single, sub-radical; spadix containing about four flowers.

Roots thick, numerous, filiform, strict, whitish, knee-jointed; stem one-leaved, thick, round, sheathed, a foot high, thickened towards the roots, knotted. Sheaths closed, alternate, closely surrounding the stem, keeled, streaked, membranaceous, whitish. Leaf, in the middle of the stem, sessile, sheathing, from round awl-shaped, deeply grooved, erect, spotted, thick, fleshy; spadix from the sinus of the base of the leaf, and of the same length with it, erect, round; spathes minute, on the spadix and below the flowers, which are from twelve to fifteen, large, whitish, yellow, sessile.—Petals, three outer lanceolate-linear, long, spreading; two inner linear. Nectary somewhat funnel-shaped, embracing the column, erect, compressed, bellying at the base, keeled, dilated at top; lip ovate, with an awl-shaped, striated, veined, spreading, whitish, point. Column minute, inclosed within the nectary, keeled, hollowed in front, bearing at top four oblong, bipartite, pedicelled, anthers, concealed by a four-celled cover. Germ very long, round, filiform; stigma moistened in front, under the cavity of the anthers; capsules an inch long, oblong, pendulous, six-grooved, three-valved, many-seeded; seeds dusty, bristly. This grows near the coast, and flowers in spring.—Sw. Browne calls it the *lark-spur parasitical satyrium*, growing on trees, and seldom rising above seven or nine inches in height.

## 51. COCHLEATUM. SPOONED.

Leaves oblong, double, smooth, streaked, growing on the bulb; scape many-flowered; nectary cordate.

Roots filiform, strict, whitish; leaves broad-lanceolate, acuminate, keeled at the base, compressed, growing on an oblong, fleshy, smooth, fibrous, succulent, compressed, bulb, involved in membranaceous sheaths; spathe two-leaved, one less than the other, acuminate, at the base of the scape among the leaves; scape, from the middle of the bulb, solitary, round, erect, with a few minute spathes. Flowers terminating, four or five, large, sub-sessile; petals linear, acuminate, reflex, yellowish. Nectary lip heart-shaped, blunt, concave, dark blood-red, streaked with white at the base, yellow at the tip. Column three-cornered, spotted with red at the base, three-horned at the tip, bearing two pedicelled bipartite anthers; capsules oblong, acuminate, pendulous. Native of the mountains.—Sw.

See VANILLA.

## GROUND-IVY.

## GLECHOMA.

CL. 14, OR. 1.—*Didymia gymnospermia.* NAT. OR. Verticillata.

Y y 2

GEN.

**GEN. CHAR.**—Calyx a one-leafed five-cleft perianth; corolla one-petaled; ringent; stamens four filaments, two shorter; each pair of anthers converging in form of a cross; the pistil has a four-cleft germ, a filiform style, and bifid stigma; there is no pericarp, the calyx cherishing the seeds in its bosom, which are four, ovate. There is only one species, long ago introduced into Jamaica.

HEDERACEA. IVY.

Leaves kidney-shaped, crenate or scalloped.

This well known plant now grows wild in many parts of Jamaica, though it does not thrive in some places. The root is fibrous, the stalks square, procumbent and jointed; the leaves are roundish, of a dusky green, hairy, and crenated about the edges; the flowers are moderately large, and of a beautiful blue.

Ground-ivy, which has a strong smell, and bitterish aromatic taste, is an attenuant and dissolvent, and famous both internally and externally as a vulnerary. It is much used by way of tea in disorders of the breast and lungs, and is sometimes an ingredient in the pectoral decoction. It is esteemed a specific in erosions and ulcerations of the viscera, and particularly of the kidneys and lungs; and its juice has been given in consumptions. Lindanus praises it in empyema and vomica pulmonum, and recommends it to such as void blood and purulent matter by urine. It is also said to be good in bruises, and to cure the head ach.

The infusion or decoction, taken inwardly, drives out the scorbutic itch. Dr. Buchan recommends it for the rheumatism and foul scorbutic eruptions; indeed, in most rheumatic and scorbutic disorders, the internal use of bitters, with a little flour of brimstone, to quicken the eruption and render it general, are highly beneficial, particularly in rheumatisms, which are combined with a scorbutic taint in the juices. In cases of this kind, some eminent practitioners have had great success by trusting entirely to bitters and flour of brimstone, with a free use of sarsaparilla, and totally rejecting gum-guaiacum. Ground-ivy and vervain tea are good in hectic fever. The expressed juice, mixed with a little wine, and applied morning and evening, destroys the white specks on horses eyes.

GROUND-NUTS, or PINDARS.

ARACHIS.

CL. 17, OR 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

**GEN. CHAR.**—Calyx a two-parted gaping perianth; corolla papilionaceous, resupine; the stamens are ten filaments, all united at the bottom; anthers alternately roundish and oblong; the pistil has an oblong germ, a subulate ascending style, and simple stigma; the pericarp is an ovate-oblong legume, columnar, valveless, gibbous-torulose, veined, coriaceous, one-celled; seeds two, oblong, obtuse, gibbous, truncate at one end. There are two species, one of which has been introduced.

HYPOGAEA. SUBTERRANEAN.

*Arachidna Indigæ utriusque tetraphylla*. Sloane, v. 1, p. 184. *Tetraphylla, siliquas infra terram recondens; seminibus oblongis.*—*Browne, p. 295.*

Stem.

Stem herbaceous, procumbent.

Stem round, hairy, sub-erect, with diffused procumbent branches. Leaves scattered, petioled, abruptly pinnate; leaflets two pairs, ovate, hairy, quite entire, on very short petioles; stipules long, sharp-pointed, bifid, opposite, half-stem-clasping; flowers gold coloured, axillary, growing singly, on very long slender peduncles.—Many of them male, mixed with the hermaphrodites. The legumes contain two, three, or four seeds. The manner of its perfecting is very singular, for, as the flowers fall off, the young pods are forced into the ground by a natural motion of the stalks, where they are entirely buried, and the pods are not to be discovered without digging for them, whence the name of ground-nuts. This plant thrives well in Jamaica in a free soil and warm situation, and propagates itself very fast, by creeping along the ground, and shooting roots from every joint. They are very agreeable nuts, and deserve to be more generally cultivated than they are; when roasted, ground, and boiled, they make a good substitute for chocolate.

*Pindolls*.—The first I ever saw of these growing was in a negro's plantation; who affirmed, that they grew in great plenty in their country; and they now grow very well in Jamaica. Some call them *gub-a-gubs*; and others ground-nuts, because the nut of them, or fruit that is to be eaten, grows in the ground: These are of the bigness, colour, and shape, of a filbert; they are covered over in the ground with a thin cistus or skin, which contains two or three of them; and many of the cistuses, with their nuts or kernels, are to be found growing to the roots of one plant. When they are ripe and fit to dig up, the cistus that contains them is dry, like a withered leaf, which you take off, and then have a kernel, reddish without-side and very white within, tasting like an almond, and accounted by some as good as a pistachio; they are very nourishing, and accounted provocatives. Some say, if eaten much, they cause the head-ache; but I never knew any such effect, even by those who chiefly lived upon them; for masters of ships often feed negroes with them all their voyage; and I have very often eat of them plentifully, and with pleasure, and never found that effect. They may be eaten raw, roasted, or boiled. The oil drawn from them by expression is as good as oil of almonds; and the nut, beaten and applied as a poultice, takes away the sting of scorpions, wasps, or bees.—*Barham, p. 145.*

The plant, which produces these nuts, was first brought from Africa. In southern climes, vast crops of these nuts are said to be produced from light, sandy, and indifferent soils. Dr. Brownrigg, of North Carolina, transmitted some account of the value of these nuts to the Royal Society. From a quantity of them, first bruised, and put into canvas bags, he expressed a pure, clear, well tasted oil, useful for the same purposes as the oils of olive or almonds.

From specimens both of the seeds and oil, produced before the society, it appeared, that neither of them were subject to turn rancid by keeping. The oil in particular, which had been sent from Carolina eight months before, without any extraordinary care, and had undergone the heats of the summer, remained perfectly sweet and good. A bushel of them yielded (in Carolina), without heat, one gallon of oil; and, with heat, a much larger quantity, but of inferior quality. It has been justly supposed, that, from a successful prosecution of this manufacture, the colonies may not only be able

able to supply their own consumption, in lieu of the olive oil annually imported from Europe, but even make a considerable article of their export.—*Long*, p. 788.

GROUNDSEL—See INDIAN GROUNDSEL.

GUAIACUM—See LIGNUM VITÆ.

## GUAVA.

## PSIDIUM.

CL. 12, OR. 1.—*Icosandria monogynia*. NAT. OR.—*Hesperidæ*.

GEN. CHAR.—Calyx a one-leafed perianth, bell-shaped, five-cleft, permanent; segments ovate; corolla five petals, ovate, concave, spreading, inserted into the calyx; the stamens are numerous filaments, scarcely shorter than the corolla, inserted into the calyx, with small anthers; the pistil has a roundish inferior germ, an awl-shaped long style, and simple stigma; the pericarp is an oval large berry, crowned with the calyx, one or many celled; seeds numerous, small, nestling. Two species are natives of Jamaica.

1. PYRIFERUM. PEAR-BEARING.

*Malo punica affinis pomifera, flore pentapetalo albo, fructu nullis dissepimentis interstincto, ex toto esculento, majore albo.* Sloane, v. 2, p. 163. *Fruticosum, foliis ovatis venosis, fructu majori.*—Browne, p. 238.

Leaves elliptic; peduncles one-flowered.

This tree is common in most pastures of Jamaica, rising from eight to twelve feet high. The bark is of a yellowish brown colour, smoothish, with ash-coloured spots.—The wood is very hard and tough, and used for making bows and cattle yokes, as also for fuel. The branches are numerous and irregular, the young ones four-cornered.—Leaves elliptic, entire, on short petioles, four or five inches long, opposite, green above, dull green below, with midribs and numerous hard prominent veins. The peduncles come out from the wings of the leaves, opposite to each other, they are solitary, half an inch long, supporting a white sweet-smelling flower. The calyx is one-petaled, in its early stage completely enveloping the corolla, like a rose-bud, above the germ, and, as it expands, splits into four or five irregular segments. The fruit is smooth, crowned with the calyx, not unlike in shape and size to a pomegranate, having an agreeable smell, and turning yellow, when ripe; the rind is about one-eighth of an inch in thickness, brittle, and fleshy, containing a firm pulp of white, red, or yellow, colour, in the varieties, and of an agreeable taste; full of bony seeds. This fruit is eaten with avidity by most people, and is of a restraining quality, as well as all other parts of the tree; the bark of which has been given to cure fluxes. Boiled or stewed, the fruit eats like English warden. The red kind is the most delicate, and has the thinner rind. The rind, &c. stewed in milk, is very agreeable. From the same part is made marmalade, and from the whole fruit a very fine jelly is prepared. The seeds are so hard as to resist the action of the stomach, so that when voided they will vegetate, and produce thriving trees. The buds, boiled with barley and liquorice, make an excellent ptisan for diarrhoeas, and even the bloody flux, when not too inveterate. A decoction of the roots, young leaves, or fruit, is also recommended; as also the



half-ripe fruit stewed, as binding and astringent; and the marmalade of the ripe fruit is excellent in fluxes. A bath of a decoction of the leaves is said to cure the itch, and other cutaneous eruptions. The bark is said to tan leather as well as that of oak. The fleshy part of the fruit, boiled and brought to a sufficient degree of tenderness, when cool, and mixed with milk and cream, is an agreeable desert, and served up in the same manner as strawberries, in Europe. Horses, cattle, hogs, and other animals, are very fond of the fruit; and no food will fatten hogs sooner, or give their flesh a better flavour. In pastures where they grow, cattle and horses are observed eagerly searching for the fruit on the trees. The following is the method of preparing the marmalade: "Take the reddest guavas, and pare all the outside rind as thin as you can, and then grate them upon a large grater as fine as possible; then pulp them through a coarse hair sieve, and to every pound of pulp put a pound of sugar; but the guava pulp must boil before the sugar is put in, and kept constantly stirring lest it should burn. Let it boil till it is pretty thick, then drop a little upon a piece of paper, and when thick put it into plates or cups, squeezing into it a little juice of lemon, or two or three spoonfuls of orange-flower water. Set it in the sun to dry for three or four days."

## 2. MONTANUM: MOUNTAIN.

*Arboreum maximum, foliis ovatis nitidis, ligno fusco, fibris undulatis.*  
Browne, p. 239.

Leaves oblong-acuminate, crenulate, shining; peduncles many-flowered.

This is one of the largest trees in Jamaica, growing frequently to the height of sixty or seventy feet, with a proportioned thickness; and is an excellent timber-wood, having a beautiful dark coloured curled grain; it works easily, and takes a fine polish; and makes handsome walking sticks.—*Browne*. The flowers of this tree, which come out in little clusters of four, five, or six, together at the ends of the twigs, are in every respect the same as that of the other, but rather smaller. The leaves are more acuminate, much smaller, seldom exceeding three inches in length; they are also smoother on both sides, and their veins are not prominent. The branches are crooked and irregular; the bark smooth, and very like that of the *pyramiferum*, having frequently scales dropping off. The foliage and branches do not spread much, but grow upwards. The fruit is also eatable, but smaller than the other, of a green colour, and soft when ripe, having a very pleasing smell, like that of strawberries, which the pulp also resembles in taste, leaving its rich flavour on the palate for some time after eaten. This fruit also makes excellent marmalade.

## GUINEA CORN, OR MILLET.

## HOLCUS.

CL. 23, OR. 1.—*Polygamia monoecia.* NAT. OR.—*Gramina.*

GEN. CHAR.—Hermaphrodite flowers sessile.—Calyx a one-flowered, two-valved glume, sub-ovate, obtuse, coriaceous, awnless; corolla a two-valved glume, less than the calyx, awn from the cleft of the glume, long or short, jointed, twisted, sometimes none; nectary three-leaved; stamens three, capillary, tender; anthers oblong, bifid; the pistil has an ovate germ, two styles, and oblong feathered stigmas; there is no pericarp, but the glumes of the corolla and calyx are rolled about.

about the seed, which is solitary, ovate, covered, armed with the awn of the corolla, which however easily falls off. The male flowers are peduncled, solitary, or in pairs, accompanying the hermaphrodite, smaller.—Calyx a two-valved glume; corolla two-valved, smaller; nectary as in the hermaphrodite; the pistil has a small angular, abortive, germ; two styles, and no stigmas. There are two species now cultivated in Jamaica.

## 1. SORGHUM.

*Milium Indicum arundinacea, caule gravis flavescens.* Sloane, v. 1, p. 104. *Panicum 7.—Erectum maximum, panicula stricta cylindrica aristata.* Browne, p. 134.

Glumes villose; seed compressed, awned.

Panicle contracted, ovate, upright, but as it ripens drooping; calyx green, pubescent; awn brown at bottom, smooth and whitish at top; seed naked, free, sub-globular, compressed a little on both sides, smooth without, shining, of a milky whiteness, with a black umbilical dot. This differs so little from the following as scarcely to make them a distinct species. The stalks rise six or eight feet, or even more; the leaves are long and broad, embracing the stalks; the flowers come out in large oval panicles at the tops of the stalks, succeeded by roundish seeds, enveloped in chaff, and bristles, which defend it from the birds. These plants were brought from Africa to this island, and are now generally and very extensively cultivated, not only on account of the valuable qualities of the grain, but of its amazing productiveness. In the rich lowlands of Jamaica, an acre is often known to produce from thirty to fifty bushels. In the mountainous parts it does not succeed so well, as, from the superior quantity of moisture and coolness, it runs into such a luxuriance of stalk and leaves, as to produce little or no fruit. The grain, when ground, yields a most excellent fine white flour, very nourishing, and, under different modes of preparation, forms an essential part of food for the negroes. Poultry of all kinds are very fond of it; and it is also a most nourishing food for horses and hogs, especially if given to the former on the spikes, plucked from the main stalk of the ear, which they will eat, spikes and all. In this state it is considered by many as superior to great corn, as the trash surrounding the grain is not only of itself good food, but assists in cleaning the animals intestines from bots and worms. The stalks are also an excellent food for stock, and, when dried, may be kept for use a great length of time; they contain an agreeable luscious juice, which, properly prepared, would yield very good sugar. This corn must be planted from September to November, and is ripe in January and February; it is not productive at any other season of the year. The grain, if well dried, and stored upon the ear, will keep for several years, and is generally thus preserved on most plantations, where it is cultivated, from crop to crop.

## 2. SACCHARATUS. SUGAR.

*Erectum maximum, paniculis plurimis declinatis.* Browne, p. 135.

Glumes villose; all the seeds awned.

This is so like the foregoing in every respect, as hardly to be distinguished but by its bearing successive panicles from all the upper joints. Browne calls it *Guinea wheat*.

*See GUINEA GRASS.*

GUINEA

## GUINEA GRASS.

## HOLCUS.

CL. 23, OR. 1.—*Polygamia monoecia*. NAT. OR.—*Gramina*.

GEN. CHAR.—See Guinea Corn, p. 351.

POLYGAMUM. POLYGAMOUS.

*Major assurgens, culmo compresso, spica laxa spatiosa.* Browne, p. 366.

Panicle compound, capillary, spreading; floscules polygamous; culm jointed, hirsute.

This has been classed as a *panicum* by Swartz and other authors, but later botanists, as well as Browne, have made it a species of *holicus*. Browne observes that its characters agree pretty well with those of the *panicum* in general; but the flowers commonly grow very luxuriant, and, though often hermaphrodite, are generally observed to be distinct males and females, surrounded by separate involucre, and standing on distinct pedicels within the same calyx. This most valuable grass is a native of Africa, and was introduced into this island many years ago by the merest accident. Mr. John Ellis got some birds from the coast of Guinea, and with them some seeds for their support; the birds dying soon after, the seeds were thrown out of doors as useless. From these seeds grew some luxuriant grass, which attracted Mr. Ellis's notice, and he had a horse and a cow brought where it was, when both of them greedily eat of it. It was then transplanted into a garden and gradually cultivated, until it has become one of the most lucrative and useful plants in Jamaica. It agrees with almost every soil and situation, and has rendered many rocky and otherwise barren spots of Jamaica very valuable, as affording support to herds of cattle and horses. The growth of this grass is very quick, for in wet weather, and in a favourable situation, it may be cut once in a fortnight. It resists dry weather for a considerable time, and even, when parched up, the slightest showers will revive it. It rises from five to eight feet high. When of proper strength it is a very excellent food for horses and cattle, which, when considerably lean and reduced, will be restored to flesh and fatness in two or three months by feeding upon it. This grass does not require so much moisture as the Scotch grass, but is justly esteemed as a more hearty fodder, and makes a very nourishing hay. The manner of cultivating it is to make the land intended for it perfectly clean by hoeing, and then to dig holes from three to five feet distance, according to the quality of the soil. The holes should be large and deep enough to bury a few roots of the grass a good depth, which are taken from a neighbouring nursery or grasspiece, as it is of service to large roots to separate half of them, and then mould up what remains in the ground. The plants should be topped within a few inches of the root, put into the holes, well covered with earth, and pressed down with the foot; and a stone laid upon the place is thought useful, by occasioning the grass to spread more. Care should be taken to keep the young plants free of weeds. The best time for planting is in April and May, for the grass will then perfect its seed in September and October, the season when it seeds the most abundantly. The ground should be quite clean when the seed is ready to drop, and if the spaces between the roots be then stirred with the hoe, it would be found very beneficial. When the seed is all fallen stock may be turned in, to eat the grass and tread the seed into the ground. In rich and new land the grass at first will grow so rank as to produce very thick stalks, which, by running up the noses of the stock, prevents them

them from eating it so close as they otherwise would. When, however, it is eaten as near the ground as possible, the remaining grass should be cut down or burned off; after this, if favourable rains fall, it will grow from the roots and seed, and, by covering the ground in May following, will be perfectly established for several years, according to the quality of the land. Whenever the grass becomes thin, holes may be opened in such places, and roots again planted to supply it; and by this attention a field will scarcely ever be so totally worn out as to require the labour of being at any one time replanted. With very little care in its infancy, this grass will overcome all other grass and weeds; and in ground full of stones and rocks, though planted at great distances at random, as the soil admits, it will spread itself about them in a few months, and at last cover them entirely. If the stalks be buried a few inches deep, each joint will take root and grow; or, it may be propagated directly by sowing the seed, the ground being previously prepared for that purpose; but the seed will lie sometimes many months in the ground before it makes its appearance. Some planters do not stock up the roots which are planted when the grass has seeded; and others depend upon what they afford, by continually feeding or cutting the grass, at a certain height, without ever allowing it to seed; but it is the surest way of establishing the grass, to allow it to shed its first seed.

See GUINEA CORN.

#### GUINEA-HEN-WEED.

#### PETIVERIA.

CL. 6, OR. 4.—*Hexandria tetragynia*. NAT. OR.—*Holoraceæ*.

This was so named in honour of James Petiver, an apothecary of London.

GEN. CHAR.—Calyx a four-leaved perianth, leaflets linear, blunt, equal, spreading, permanent; there is no corolla, except the coloured calyx; stamens six to eight (Swartz observed mostly seven), unequal, awl-shaped, converging; anthers erect, linear-sagittate, bifid at top; the pistil has an ovate, compressed, emarginate, germ; a very short lateral style, in the groove of the germ; (Gærtner observed four styles, permanent, finally bent outwards, spinescent); stigma pencil-shaped; there is no pericarp, except the crust over the seed; the seed is single, oblong, narrower below, roundish, compressed, emarginate, with four barbed hooks, bent back outwards, rigid, acute, the middle ones longer; (naked according to Gærtner, but armed above with reflex spines). One species is a native of Jamaica.

#### ALLIACEA.

#### GARLIC.

*Verbena aut scorodonia affinis anomala, flore albido, calyce aspero allii odore.* Sloane, v. 1, p. 172.

Flowers six male.

This plant grows plentifully in Jamaica; the calyx is a monophyllous perianth, or rather a simple glume of a lanceolated form, having a very short appendicle on each side. The styles are not four in number; what hitherto have been called styles are only four reflected spines, placed on the top of the germ. The styles, or what ought to be called so, are placed on the hind part of the germ, next to the receptacle, and consist of many subulate filaments, or else are one pensiliform style, divided into many parts. The root of this plant is strong, about the thickness of a thumb, deeply fastened

ened in the earth, and of a brownish white colour; the stem is from two to three feet high, jointed, and becoming woody at the bottom. The leaves spring from the joints and are oblong, three inches long and half as broad, of a deep green and veined, placed alternately on short footstalks. The tops of the branches are for a foot in length without any leaves, but set close on every side with white tetrapetalous flowers, sessile, very small, making no figure; the seed is cuneiform, oblong, with an obscure ridge on one side, and a depressed line on the other, armed at top with four pungent spines, at first almost upright, but afterwards reflected to the back, of a bay or pale green colour. It grows in shady woods and savannas in such plenty as to become a troublesome weed. Its root and all parts abound with very volatile particles, like the horse radish root, and so remarkably acrid that the smell or taste can hardly be borne. On chewing a little of it, it burns the mouth and leaves the tongue dry, black, and rough, as it appears in a malignant fever. It is much coveted by Guinea hens; whence the name is derived. Its juice has been used in hysteric fits instead of other foetid drops, with success; and seems well adapted to the purpose when fresh scraped and bruised, and might serve, instead of mustard, for applying to the feet in fevers. As this plant endures much drought, it remains green when others are burned up, when cattle will feed upon it; and it has been observed to give their milk the taste of garlic, and to communicate an intolerable rankness to their flesh, especially to their kidneys; which, however, goes off in about a fortnight; on their being fed on good grass. Sloane says that a piece of the root, put into a hollow tooth, cures its aching. Barham calls it *coca*, and speaks of it as follows:

"This herb is famous in the histories of Peru; the Indians fancying it adds much to their strength; others affirm, that they use it for charms; as for instance, when the mine or ore is hard to work, they throw upon it a handful of this herb chewed, and immediately get out the said ore with more ease and in greater quantity, as they fancy. Fishermen also put some of this herb chewed to their hook, when they can take no fish, and they are said to have better success thereupon. In short, they apply it to so many uses, most of them bad, that the Spaniards prohibit the use of it; for they believe it hath none of those effects, but that what they attribute to it is done by the compact the Indians have with the devil. The leaf is a little smooth, and less nervous than that of the pear-tree; the shrub does not grow above four or five feet high. The greatest quantity grows about thirty leagues from *Cicacia*, among the *Yunnas*, on the frontiers of the *Yunghos*. The taste of it is so harsh, that it fleas the tongues of such as are not used to it; it occasions the spitting of a loathsome froth, and makes the Indians who chew it continually sunk abominably. It is said to supply the want of food, and that, by the help of it, a man may live several days without eating, and not be sensibly weakened. It is thought to fasten the teeth, and take away their distempers; and it answers in all respects the purposes of tobacco."—*Barham*, p. 43.

#### GUINEA PEPPERS. CAPSICUM.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Lurida*.

Some derive the generic name from a Greek word signifying to bite, on account of the biting heat of its fruit; others from *capsa*, a chest.

GEN. CHAR.—Calyx a one-leafed perianth, five-cleft, erect, permanent; corolla monopetalous.

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monopetalous, rotated; tube very short; border half five-cleft, spreading, plaited; divisions broad, acute; the stamens are five subulate, very small, filaments, with oblong converging anthers; the pistil has a superior ovate germ, a filiform style, longer than the stamens, and an obtuse stigma; the pericarp is a berry without a pulp, approaching to an ovate figure, bilocular, hollow, coloured; receptacles growing to the dissepiment, exsuccous; seeds very many, reniform, compressed. Obs.—The figure of the pericarp is indeterminate; the genus differs from its congeners, in having a baccated exsuccous pericarp. Five species are reckoned of this genus, seeming to be only varieties, a great many of which are to be found in Jamaica.

'BACCATUM. 'BERRIED.

Stem shrubby, smooth, and even; peduncles in pairs.

Of this herbaceous plant the island of Jamaica possesses a great variety, principally distinguished by the size, colour, and shape, of the fruit, which is a hollow two or three celled berry, containing kidney-shaped, round, or beaked, smooth, seeds. The receptacle is at the bottom of the berry, intimately connected with the partitions, so that some of the seeds are sometimes fixed to the partitions themselves. From the rich and varied colour of the fruit, which they bear in abundance, these plants are highly ornamental, as well as useful. They seldom rise above three feet from the ground. The capsule and seeds of the whole tribe are full of a warm acrid oil, and used for seasoning food, and other culinary purposes, as the heat they impart to the stomach is thought very much to promote digestion, assist the tonic motion of the bowels, invigorate the blood, and correct the flatulency of vegetable aliment. The following are enumerated as the most remarkable kinds:

1. BIRD PEPPERS.—These are the smallest kind of pepper, and have also the smallest leaves; there are two varieties, one with a blue fruit, called sometimes *hen-pepper*, which grows to a great height in the woods; the other with a red fruit, which is a handsome shrub, from the fruit of which is made Cayenne pepper; they are reckoned the strongest pepper, and received the name from birds and poultry being fond of them. They are about the size of a field pea.

2. BELL PEPPERS.—Of which there are two kinds: the largest purple bell pepper, which seldom exceeds four feet in height; its leaves are much longer than any of the rest, and the fruit often as big as a large cashew. The plant seldom lasts more than two years. The other kind has a large heart-formed red fruit. These are considered the best for pickling.

3. GOAT PEPPERS.—Of these there are several varieties, which are very generally used: The greater round upright; the broad crumpled; the short round; the long; and the hairy-stalked. The smell of these, from which the name is derived, some think rank, while others consider agreeable and reviving: they are all of a beautiful shining yellow colour.

4. BONNET PEPPERS.—These have a large turbinate fruit, not furrowed like the bell peppers, but very shining.

5. FINGER PEPPERS.—These are called so from the shape being like a finger, large, oblong, and conical; they are of a beautiful yellow colour.

6. CHERRY PEPPERS.—Named so from their resemblance in size, shape, and colour, to cherries.

7. CORAL

7. CORAL PEPPERS.—These are called so from their long, slender, singularly twisted, shape and shining red colour, resembling corals.

8. RAMS-HORN PEPPERS.—These are formed like the coral pepper, but are much longer and more spiral, and somewhat flattened.

9. OLIVE PEPPERS.—The fruit is of a beautiful yellow colour, and in shape like an olive, of which there is a pendulous and an upright variety.

10. FORKED, or double pointed peppers.

11. NIPPLE PEPPERS.—The leaves of this come out in opposite tufts, and the fruit is shaped like a cone or nipple, broad at bottom, and narrowing to a point.

The above are the principal varieties to be found in Jamaica, but nature has sported so much in the form of the fruit, that it is almost endless to trace the different shapes and figures they put on.

Capsicum has all the virtues of the oriental spices, without producing those complaints of the head which they often occasion. In food it prevents flatulency from vegetables, but the abuse occasions visceral obstructions, especially of the liver. In dropsical complaints, or others where chalybeates are indicated, a minute portion of powdered capsicum is an excellent addition. In lethargic affections this warm and active stimulant might be of service. In tropical fevers a coma and delirium are common attendants, and in such cases cataplasms of capsicum have a speedy and happy effect; they redden the parts, but seldom blister unless kept on too long. In ophthalmias, from relaxation of the membranes and coats of the eyes, the diluted juice of the capsicum is a sovereign remedy; and I have often witnessed its virtues in many obstinate cases of this sort. In some parts of South America the Indians prick the loins and bellies of hectic patients with thorns dipped in the juice of capsicum.

Of late capsicum has been successfully used in particular cases of the yellow fever.—It settles the stomach, abates bilious vomitings, and even mæna, the morbus niger of Hippocrates, or black vomit, has been cured by it. The form it is given is either from the green pepper, or of the genuine powder capsicum. Three parts of the bottom part of the green bonnet pepper, and two parts crumbs of bread, made into a large pill, and given every two hours, or oftener, till the stomach is settled. Or three grains genuine powder of Cayenne pepper, made into a firm pill, and completely coated with white wafer, to be given as above. This medicine has been given patients in the end of the yellow fever, when debility and extreme weakness had taken place, and with the happiest effect. It warms and stimulates the stomach, brings on a genial warmth and diaphoresis, and assists greatly in giving a favourable turn to this disorder.—*Wright.*

In recent pleuritic stitches a poultice of bruised peppers, applied to the place affected, frequently removes the complaint; and the berries bruised, and mixed with lard, is recommended to be rubbed on paralytic limbs.

The following recipe is the famous pepper medicine for the cure of malignant influenza and sore throats; which has been found highly efficacious, and is recommended as a powerful diaphoretic, stimulant, and antiseptic: Take two table-spoonfuls of small red pepper, or three of common Cayenne pepper, add two of fine salt, and beat them into a paste; add half a pint of boiling water, strain off the liquor when cold, and add to it half a pint of very sharp vinegar. Give a table spoonful every half hour as a  
dose

dose for an adult, and so in proportion for younger patients. Perhaps this medicine might merit a trial in the yellow fever.

The general mode of preparing Cayenne pepper is by gathering the bird peppers when ripe, drying them in the sun, powdering and mixing them with salt, which, when well dried, is put into close corked bottles, for the purpose of excluding the air, which disposes the salt to liquify, and therefore is thought by some an improper ingredient in the composition. This is sometimes called Cayenne butter, and is in general esteemed for the excellent relish it gives to different dishes.

The mixture called *man-dram* is made from these peppers in the following manner, and seldom fails to provoke the most languid appetite: the ingredients are, sliced cucumbers, eschalots or onions cut very small, a little lime-juice and Madeira wine, with a few pods of bird or bonnet pepper well mashed and mixed with the liquor.

For the purpose of pickling the bell and goat kinds are considered the best: For this purpose they are gathered before they arrive at their full size, while their skin is tender: they are slit down on one side, and the seeds taken out, after which they should be soaked in salt and water for twenty-four hours, and the water changed at the end of the first twelve hours. When they are taken out of this, they should be drained, put into bottles or jars, and boiled vinegar, after being allowed to cool, poured upon them in sufficient quantity to cover them. The vessels should then be closely stopped for a few weeks. They are esteemed the wholesomest pickle in the work. The pepper vinegar, with barley water and honey, is a good mouth or throat gargle.

The following is a receipt for making what is called *cayan pepper-pot*: "Take the ripe bird peppers, dry them well in the sun; then put them into an earthen or stone pot, mixing flour between every stratum of pods; and put them into an oven after the baking of bread, that they may be thoroughly dried: after which they must be well cleansed from the flour; and if any of the stalks remain adhering to the pods, they should be taken off, and the pods reduced to a fine powder: to every ounce of this add a pound of wheat flour, and as much leaven as is sufficient for the quantity intended. After this has been properly mixed and wrought, it should be made into small cakes, and baked in the same manner as common cakes of the same size: then cut them into small parts, and bake them again, that they may be as dry and hard as biscuit; which, being powdered and sifted, is to be kept for use." This is prodigiously hot and acrimonious, and by some recommended as a medicine for flatulencies. If the ripe pods of capsicum are thrown into the fire, they will raise strong and noisome vapours, which occasion vehement sneezing, coughing, and often vomiting, in those near the place or in the room where they are burned. Some persons have mixed the powder of the pods with snuff, to give to others for diversion: but where it is in quantity there may be danger in using it; for it will occasion such violent fits of sneezing as may break the blood vessels of the head.

The bird peppers are given internally to cure the dry gripes in horses and mules, when occasioned by rank or sour grass. They are likewise externally applied in cataplasms.

A small quantity of the capsicum powder has sometimes given almost immediate relief in the tooth-ache, when arising from caries; it is to be applied to the part affected by introducing it into the cavity of the carious tooth.

*Capsicum Peppers.*—These are all much of the same nature. The large hollow sort, called bell-pepper, pickled while green, is an excellent relishing pickle or sauce for meat.



meat; the other small red peppers, when ripe, taken and dried in the sun, and then ground with salt and pepper, close stopped in a bottle, are an excellent relisher to sauce for fish or flesh, and commonly called kyan butter. All these sorts of pepper are much more of a burning heat than white or black pepper. Some punish their slaves by putting the juice of these peppers into their eyes, which is an unspeakable pain for a little while; and yet, it is said that some Indians will put it into their eyes before they go to strike fish, to make them see clearer.

These peppers stop vomiting, create an appetite, and strengthen the stomach, if rightly prepared; some I have known to swallow a certain number of them whole, as some do *cudebs*, for the pain in the stomach and cholic; they powerfully provoke the terms, facilitate birth and after-birth, and are good against gravel, or tar arouns slimy matter that breeds the stone in the kidneys or bladder. But I would not advise any person that labours under venereal symptoms, or those who are heetical, to meddle with them. When infused or digested in spirits of wine, it takes off much of their violent heating and inflaming quality, and they are then great provokers of urine, curing dropsies. Infused in oil, they take away the numb palsy, or loss of the use of the limbs; and, mixed with goose grease, resolve imposthumes that come from cold, &c.

Near St. Michael de Sapa, in the Vale of Arica, they cultivate the *agi*, that is Guinea pepper; where there are several farms which have no other product but this pepper. The Spaniards of Peru are so generally addicted to that sort of spice, that they can dress no meat without it, though so very hot and biting, that there is no enduring it, unless well used to it.—*Barham*, p. 30.

#### GUM ARABIC TREE.

#### MIMOSA.

CL. 28, OR. 1.—*Polygamia monoecia*.

NAT. OR.—*Lomentaceæ*.

GEN. CHAR.—See Cacaoon, p. 137.

#### NILOTICA. NILE.

Spines stipulary, spreading; leaves bi-pinnate, the outer partial ones separated by a gland; spikes globular, peduncled.

This plant is a native of Arabia and Egypt, and since its introduction has thriven very well in most parts of this island, where, like many other plants, it deserves more attention than it has met with. It grows with an upright branching stem, armed with spreading spines; the bark of the trunk is smooth and of a grey colour, that of the branches has commonly a purplish tinge. The leaves are delicate, bi-pinnated, and placed alternately; the partial pinnae are opposite, furnished with a small gland between the outermost pair, and beset with numerous pairs of narrow elliptical pinnulae, or leaflets. The spines are long, white, spreading, and proceed from each side of the base of the leaves; the flowers are hermaphrodite and male; they assume a globular shape, are yellow, and stand four or five together upon slender peduncles, which arise from the axillæ of the leaves.

The various uses of the gum of this tree are well known. It exudes in a liquid state from the bark of the trunk and branches, and, by exposure to the air, soon acquires hardness and consistency.

The medical character of the gum arabic is its glutinous quality, in consequence of which

which it serves to incrassate and obtund thin acrid humours, so proves useful in tickling coughs, alvine fluxes, hoarseness, in fluxes of the belly with gripes, and where the mucus is abraded from the bowels or from the urethra. In a dysuria the true gum arabic is more cooling than the other simple gums, so should be preferred.

It is said to be an useful medicine as a gargle and ptisan to diminish the discharge occasioned from the mouth by excessive salivation. In Dr. Percival's Essays, vol. I. the following case is related: "A gentleman always easily affected by mercurials, having taken about twenty-six grains of calomel in doses from one to three grains, notwithstanding he was purged every third day, was suddenly seized with a salivation.—He spat plentifully, his breath was very foetid, teeth loose, and his gums, fauces, and the margin of his tongue, greatly ulcerated and inflamed. He was directed to use the following gargle: *R Gum. arab. semiunc. solve in aqua font. bullient. scilicet et adde mel. rosac. unc. unam. M. ft. gargar.* and to drink freely of a ptisan prepared with, *aq. hord. lib. ij. gum arabic unc. ij. nitr. pur drachm ij. sacchar. alb. unc. j.* His purgative was repeated the succeeding morning. The next day his gums were less inflamed, but the sloughs on his tongue, &c. were still as foul; his spitting was much the same; he had drank about a pint of the ptisan. Some *spt. vitrioli* was added to the gargle. From this day to the fourth he was purged every day without effect, his salivation still continued, his mouth was no better, he had neglected the mucilaginous drink. This evening he was persuaded to drink about a pint of it, which remained, and he had it repeated, and drank very freely of it that night. On the 5th morning the purgative was again repeated. Though it operated very little, yet the change was very surprising: his mouth was nearly well, and his ptyalism greatly decreased. The ptisan was repeated; and, on the sixth day, being quite well, he was permitted to go abroad."

In Mr. Hasselquist's Travels we have an instance of the extraordinary nutritive virtues of this gum. "The Abyssinians," says he, "make a journey every year to Cairo, to sell the products of their country. They must travel over terrible deserts, and their journey depends as much on the weather as a voyage at sea; consequently they know as little as a seaman how long they must be on their journey; and the necessities of life may chance to fail them when the journey lasts too long. This happened to the Abyssinian caravan in the year 1740, their provisions being consumed when they had still two months to travel. They were then obliged to search for something among their merchandise wherewith they might support nature, and found nothing more proper than gum arabic, of which they had carried a considerable quantity along with them. This served to support above one thousand persons for two months; and the caravan at last arrived at Cairo without any great loss of people either by hunger or diseases."

The *mimosa senegal*, or gum senegal tree, has also been introduced into this island, which produces a gum so similar to gum arabic, though less transparent, that it was long mistaken as the same.

See CACOONS—CASHAW—INGA TREE—NEPHRITIC TREE—SENSITIVE PLANT—WILD TAMARIND.

GUM BENJAMIN—See BENJAMIN.

GUM

GUM TREE.

HIPPOMANE.

CL. 21, OR. 8.—*Monocotyl monadelphica*. NAT. OR.—*Tricoccae*.

This generic name is derived from the Greek name of a plant supposed to make horses furious.

GEN. CHAR.—Male flowers in a terminating ament; the calyx one-leafed, roundish, bellying; with the mouth converging, emarginate; there is no corolla; the stamens is a single filiform filament, twice as long as the calyx; anthers four, roundish, fixed crosswise to the sides of the filament towards the tip. The female flower solitary, terminating, in the same plant; calyx a three-leaved perianth, withering; leaflets roundish, concave, blunt, converging; there is no corolla; the pistil is an ovate large germ, style very short, stigma slightly seven-cleft, sharp, reflex; the pericarp a globular drupe, very large, one-celled, crowned with the permanent stigmas, or a tricoceous capsule; the seed a woody irregular nut, acuminate, excavated with little pits, seven-celled, seven-valved; kernels solitary, roundish. There are three species, two of which are natives of Jamaica.

BIGLANDULOSA. BIGLANDULAR.

*Arboreum, foliis ellipticis glabris, petiolis biglandulis, floribus spicatis.* Browne, p. 358.

Leaves ovate-oblong, biglandular at the base.

This tree grows from twenty to fifty feet high, with an even brownish-ash-coloured bark. Leaves on young trees frequently a foot long, but on older ones shorter; they are blunt, crenate-serrate, of a firm substance and bright green; spikes terminating and lateral, clustered, rather to be called aments. A single ament of male flowers, at the beginning of the flowering time springs among other small ones, flowers, and falls; thick scales like glands cover the ament, commonly a pair opposite to another pair, ovate, thick, pressed close, adnate; perianth from the sinus of two scales, tubular, irregularly four-cleft, blood-red; filaments two, connate at the base, reflex, longer than the calyx, blood-red; anthers twin, open at the upper edge; pollen yellow, with the atoms oblong, when viewed with a glass appearing to have two pellucid streaks. After almost a month, the first ament falling and leaving a scar, the smaller aments of the base are elongated and flower, producing male flowers at the top, and female flowers below. The females have two scales to each flower, embracing the germ.—Calyx trifid, two segments above the scales at the sides, the other behind; germ ovate, fastened to the ament behind; style three-parted; stigmas thick, simple; capsule oblong, slightly three-cornered, at length tricoceous, small, three-celled, three-valved; seeds orbiculate, smooth, solitary.—*Sw.*

All the parts of this tree abound with a caustic lac or milk, of a light green transparent colour, which issues plentifully from a wound or fracture, of a dirty opake colour, and of little smell; which Browne observes was generally used in boiling-house lamps in every part of the country where it grew; and that it was also used for bird-lime, which purpose it answered extremely well. It blossoms in the latter end of January and beginning of February, and is in some places called *parrot-gum tree*, which has been thought a different plant, owing to the difference in the leaves and appearance of the trees in its different stages, the smallness of the leaves being the effect of age;

A. a.

and

and in the old trees too the gum is more tenacious. These trees were once found in great abundance in the eastern and north-eastern parts of Jamaica. The wood is soft and coarse, but supplies tolerable staves for sugar casks. Long mentions one tree from which three thousand staves were obtained, which were sufficient for one hundred hogheads.

See MANCHINEEL TREE.

No English Name.

GYMNANTHES.

CL. 21, OR. 8.—*Monoccia monadelphica*. NAT. OR.—

This name is derived from a Greek word signifying naked flowers.

GEN. CHAR.—Male flowers.—Calyx a compound ament, with pedicels tripartite or trichotomous, anther-bearing; there is no corolla; the stamens are naked filaments, or pedicels tripartite or trichotomous, scattered, placed on every side of the ament, very short, deciduous; anthers oblong, minute, three-celled. Female flowers on the same or a different shrub, solitary, or amentaceous; the calyx no perianth, but one or two scales at the base of the germ; no corolla; the pistil has a roundish, superior germ, scarcely any style, or very short, three-cornered; the stigmas three, linear, acute, channelled, reflex; the pericarp a tricoccus capsule, three-celled, three-valved; seeds solitary, roundish. There are two species, one of which is a native of Jamaica.

ELLIPTICA.

ELLIPTIC.

Dioicous; stamens three-parted; females amentaceous.—Sw.

HALBERT

## HALBERT WEED.

## CALEA.

GL. 19, OR. 1.—*Syngenesia polygamia equalis*. NAT. OR.—*Compositæ*.

GEN. CHAR.—Common calyx, imbricate; scales oblong; loosish; compound corolla, uniform; corollules hermaphrodite, very many, equal; proper calyx funnel-form, with a five-cleft border; the stamens are five filaments, capillary, very short, with cylindric tubular anthers; the pistil has an oblong germ, a filiform style, the length of the corollule; stigmas two, recurved, acute; there is no pericarp, the calyx unchanged; seeds solitary, oblong; down hairy, the length of the calyx; receptacle chaffy; chaffs a little longer than the calyx, eminent between the floscules. Five species are natives of Jamaica.

## PEDATE. LOBED.

*Virga aurea major, sive herba doria, folio sinuato hirsuto*. Sloane, v. 1, p. 260, t. 152, f. 4. *Erecta subhirsuta; foliis serratis, hastatis, vel simplicibus et utrinque perrectis; floribus comosis*.—Browne, p. 315.

Corymbs heaped; leaves alternate, the upper ones ovate-lanceolate, the lower ones tooth-hastate, sinuate-serrate.

*Golden-Rod*.—American golden-rod hath a strong striated green stalk, as high as a man, with rough dark-green leaves, four inches long, and sinuated about the edges; towards the top of the stalk are many branches and twigs, sustaining a great many naked yellow flowers, like those of St. John's wort or rag-wort. It is called *virga aurea major*. It is a most noble wound-herb, restraining, and healing all sores and ulcers in the mouth, or in any part of the body. It stops all sorts of fluxes, inwardly taken; and yet it provokes urine in abundance, forcing away that tartareous matter which breeds the stone.—Barham, p. 66.

From the shape of the leaves, Browne called this plant *halbert-weed*, and says it is an excellent bitter, and much used in America; where a spirituous infusion of the tops is generally kept in most plantations, and often administered as an active warm stomachic.

## 2. JAMAICENSIS. JAMAICA.

*Coryza fruticosa, cisti odore, floribus pallide purpureis summitatibus ramulorum insidentibus, capitulis et semine majoribus*. Sloane, v. 1, p. 257, t. 151, f. 3. *Subhirsuta; foliis ovato-acuminatis, oppositis; capitulis axillaribus, pedunculatis ternatis singulari sessile associatis*. Browne, p. 315.

Flowers subternate-peduncled; leaves ovate-oblong, sub-serrate, petioled.

Browne calls this the larger downy *santolina*, and says it grows chiefly in the woods and inland parts of the island, growing generally to the height of six or seven feet, or better. Stems shrubby, narrow, round, obscurely tomentose; leaves hairy, rugged, three-nerved. Flowers terminating, frequently three together; the pedicels of the same length with the flowers; calyx coloured.

3. OPPOSITIFOLIA. OPPOSITE-LEAVED.

*Erecta; foliis linearibus oppositis, quandoque ternatis; floribus remotis terminatricibus.* Browne, p. 315.

Corymbs heaped; peduncles very long; leaves lanceolate; stem herbaceous.

Stem herbaceous, two feet high, branched, upright, round, pubescent; branches opposite, long, spreading, stiff, hoary with down; leaves sub-sessile, opposite, slightly toothed; the upper ones entire, sharp, nerved, pubescent, soft; petioles broadish, very short, or none. The stem at top is as it were trichotomous, with three long terminating peduncles, at the end of which are three sub-sessile, conical, white flowers; the corollines are very small; seeds oblong, compressed, with three or four very minute awns; chaffs lanceolate, the inner ones longer than the outer. It grows on hedges in the mountains.—Sw.

See MOUNTAIN BROOMWEED and STAR-WORT.

No English Name.

HAMELLIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Rubiaceae.*

This was so named from Jean Baptiste du Hamel du Monceau, author of several books upon trees.

GEN. CHAR.—Calyx a five-parted perianth, acute, very small, superior, upright, permanent; corolla one-petaled, tube long, five-cornered, border five-parted; stamens subulate filaments, inserted at the middle of the corolla; anthers oblong, linear, the same length with the corolla; the pistil an ovate germ, with a conical tip, inferior; style filiform, the same length with the corolla; stigma linear, blunt; the pericarp an oval berry, furrowed, five-celled, crowned; seeds very many, roundish, compressed, very small. Three species are natives of Jamaica.

1. VENTRICOSA. BELLIED.

*Azorensis foliis ovato acuminatis, verticillatim ternatis, stipulis acuminatis interpositis; capsulis quinque locularibus.* Browne, p. 166.

Racemes terminating and axillary; leaves ternate, levigated; tube of the corolla bellying.

This plant grows to the height of nine or ten feet, with yellow flowers and entire leaves.

2. CHRYSANTHA.

*Afinor frutescens, foliis ovatis oppositis, stipulis acutis interpositis, capsulis quinque locularibus.* Browne, p. 166, t. 14, f. 1.

Racemes terminating; leaves oblong, wedge-shaped, acuminate, very smooth; flowers pedicelled.

This seldom exceeds four feet in height; the flowers and leaves like those of the former, the different disposition of the leaves making the principal distinction between them.

3. AXILLARIS.

3. AXILLARIS. AXILLARY.

Sub-herbaceous, racemes axillary; flowers mostly directed one way, sessile; leaves ovate-lanceolate.

This shrub grows about four feet high; the branches, middle ribs, veins of the leaves, peduncles, and fruit, are of a purple colour; the flowers small and yellow, the anthers on the inside of the stamens, and the stamens fixed to the base of the tube; the cups longer than those of the two foregoing species. The fruit is ovate, five-celled, each containing many small, depressed, angular seeds, adhering to a carnos receptacle. The leaves have a bitter disagreeable taste, and are much broader, and terminate in a narrower point, than the other species. The peduncles are patent and dichotomous for the most part, and the flowers stand in a long erect range, and are sessile. There is an acute stipule between each leaf.

HARD GRASS.

SCIERIA.

CL. 21, OR. 3.—*Monoclea triandra*. NAT. OR.—*Calamagrostis*.

GEN. CHAR.—Male calyx a glume from two to six-valved, many-flowered, awnless; glumes of the corolla awnless; filaments one to three. Female calyx from two to six-valved, one-flowered, awnless; stigmas two to three; the seed a sub-globular nut, somewhat bony, coloured. Five species are natives of Jamaica.

1. FLAGELLUM. WHIP.

*Grass cyperoides sylvaticum maximum geniculatum asperius, semine milii solis.* Sloane, v. 1, p. 118, t. 77, f. 1.

Culm three-sided, scandent, very rugged; leaves prickly backwards, three ways; flowers paniced; rachis villose.

Culm climbing very high, flaccid, sub-divided, striated, hispid with very minute bristles, and the angles rugged with very short re-curved prickles; leaves sheathed, a foot long, linear, acute, striated, keeled, smooth above, with a longitudinal hispid line, hispid beneath, with the keel and edges prickly backwards; sheaths strict, short, with a truncate hairy ligule; panicles axillary, on compressed prickly peduncles from the sheaths of the leaves; ovate with single spreading sub-villose branches. Floral leaflets bristle-shaped, short, at the base of the branches and pedicels of the panicle; pedicels alternate, surrounded at the base by a little sheath. Males mixed with the females. In the males the calyxine glume is six-valved, with the upper valves larger, all compressed at the top; glumes of the corolla membranaceous, lanceolate; filaments three, or fewer, setaceous, length of the corolline glumes. In the female, glumes from four to six-valved; the inner valves shorter; germ oblong, bluntly three-cornered; stigma simple, acute. Nut placed on the base of the permanent calyx, globular, brown and white variegated, with a tubercled whitish top.—S.

Sloane says it runs fifteen feet high among the bushes, supported by, but not turning round, them. The stalk is triangular, having three sharp rough edges, with hollows between them, as in a three-cornered sword blade; that the culm and leaves are of a very dark green; and that the seed, which comes out between two black glumes, is roundish, large, whitish like that of gromwell or pearl parley.

## 2. MITIS. SOFT.

*Tenuior, altissima scandens.* Browne, p. 335.

Culm three-sided, scandent, even; leaves even; flowers paniced; rachis smooth.

Culm erect, scandent, without knots, smooth; with the angles even; leaves lanceolate-linear, slightly keeled, widish, striated, paler, smooth on both sides; sheaths long, close, smooth, with a lanceolate blunt ligule. Panicles from the sheaths of the upper leaves, elongated, contracted; with the branches simple, alternate, three-sided, smooth; flowers smaller, on very short pedicels. Glumes of the calyx and corolla in the males a little more ovate than in the preceding. Filaments three. In the female, glumes one-flowered, the inner ones larger. Nut placed on the calyx, globular, snow-white, black, and tubercled at the top, girt at the base by a little ciliate membrane.—Swartz suspects this to be the same as the climbing *cere* of Browne, the stalk of which he says is slender, and rises to a considerable height when supported by bushes.

## 3. FILIFORMIS. FILIFORM.

Culm simple, filiform, even; leaves subulate; spike almost simple; floscules smooth, having a filiform leaflet under them.

This is a tufted grass. Culm from one to two feet high, erect, loose, sharply three-sided, smooth. Leaves linear, keeled, acute, alternate, sessile, not sheathing, hispid at the edge, and (when examined with a magnifier) cartilaginous, serrate, smooth.—Spikes terminating, simple; peduncles from two to four, alternate, few-flowered; on which are floscules from three to six, male and female mixed, sessile, approximating with a capillary leaflet under them at the base; under the valves are a few very small scales. In the male, glume of the calyx four-valved; outer valves, smaller, keeled, acute, often purplish at the lip, closed. Glumes of the corolla many, interior, small, linear, acute, imbricate, whitish. Filaments one, between the valves, length of the glumes of the males, by the side of the corolline glumes; germ roundish, whitish; style filiform, length of the glumes, three-parted to the middle; stigmas capillary, reflexed; nut ossified, oblong or roundish, bluntly three-cornered, white, very hard, inclosing the seed. It grows in very dry rocky places.—Sw.

## 4. NERVELLA. ROUGH-HAIRED.

Culm simple, filiform, pubescent; leaves linear; spike simple; floscules rough-haired.

This grass is scarcely a foot high; the roots small, filiform, black; culm erect, three-sided, striated, loose; leaves slightly sheathing at the base, distant, very narrow, slightly keeled, rough-haired. Spike terminating, composed of three or four clustered floscules, which are sessile, alternate, rough-haired. In the males, the glumes of the calyx are from two to four-valved, two-flowered, awnless; valves lanceolate, acute, ciliate at the edge with ferruginous hairs; one or two glumes interior, more tender, smaller, corolline; filaments solitary; females in the same bundle, solitary; glume two-valved, one-flowered; valves broad-lanceolate, ciliate; style bifid or trifid; stigmas villose, reflexed; nut ossified, globular, shining, white; very different from *filiformis* at first sight.

## 5. LATIFOLIA.



## 5. LATIFOLIA. BROAD-LEAVED.

Culm three-sided, leafy, erect, even; leaves broad-lanceolate, nerved; flowers panicled.

This grass is a fathom in height; culm undivided; leaves from one to two feet in length, sheathing at the base; often an inch wide, folding longitudinally, rigid; sheaths acuminate in front. Panicles terminating, or from the axils of the upper leaves erect, strict, somewhat branched; branchlets alternate, with male and female flowers scattered, distinct, sub-sessile or pedicelled, having a small leaf always under the floscules. Males terminating; glume of the calyx three or four-valved, two or three-flowered; valves ovate, acute, keeled, permanent, smooth; inner corolline glumes smaller, narrower; filaments three, very minute. Females more numerous, below the others; glume four-valved, one-flowered; the two outer valves lanceolate, the two inner broad-ovate, acuminate, permanent; germ roundish; style trifid at the top and permanent; stigmas reflexed, villose, whitish; seed globular, somewhat bony, marked with a whitish point standing out. It grows in mountain woods.—See.

HARTS TONGUES—See SPLEENWORT.

HAZLE-NUT—See COB-NUT.

## HEAD-ACHE-WEED.

## HEDYOSMUM.

CL. 21, OR. 7.—*Mopoezia polyandria*. NAT. OR.—

GEN. CHAR.—Male calyx an ament without scales, covered on every side with stamens; there is no perianth, nor corolla, nor filaments; the anthers are very many, imbricately heaped together, upright, oblong, acuminate at the tip, converging at the base into an oblong ament, and placed on a linear receptacle. The females solitary, on the same tree—Calyx a one-leaved perianth, covering the germ, three-toothed at the tip, teeth minute, upright; there is no corolla; the pistil has an oblong germ, three-cornered; a very short three-cornered style; stigma simple, obtuse; the pericarp is a berry, roundish, three-cornered, small, superior; seed single, hard, three-sided, shining. Two species were discovered by Swartz in Jamaica.

## 1. NUTANS. NODDING.

Stem shrubby; branches loose; leaves lanceolate-acuminate.

The leaves of this plant have an aromatic odour, and, when bruised and smelled, are good for relieving pains in the head, whence the English name has been derived.

## 2. ARBORESCENS. TREE-LIKE.

Stem arborescent; branches stiff, upright; leaves ovate-lanceolate.

## HEART PEAS.

## CARDIOSPERMUM.

CL. 8, OR. 3.—*Pentandria trigynia*

NAT. OR.—*Trihilata*.

This

This name is derived from two Greek words signifying seed and heart, from the seed being marked with a heart-shaped spot.

GEN. CHAR.—Calyx a four-leaved perianth; leaflets obtuse, concave; the alternate interior ones the size of the corolla, permanent; the corolla has four-petals, which are obtuse, alternate with the larger leaflets of the calyx; nectary four-petaled, coloured, inclosing the germ; leaflets obtuse, growing upon the petals, two upon the erect lip, callous at the tip, hooked at the side; the rest upon the closed lip with equal sides; the stamens are eight subulate filaments, equal with the nectary, anthers small; the pistil has a three-sided germ, three short styles, and simple stigmas; the pericarp is a roundish trilobate capsule, inflated trilocular, gaping at the tip; the seeds solitary, globular, marked at the base with a cordate scar.—Two species are natives of Jamaica.

#### 1. HALICACABUM.

*Pisum decimum sive vesicarium fructu nigro alba macula notato.*—Sloane, v. 1, p. 238. *Scandens, foliis ternata-ternatis, acuminatis, serratis.* Browne, p. 213.

Leaves smooth and even.

This has a woody, cornered, rough stalk, taking hold of any tree or shrub it comes near with its clavicles, and mounting to eight or nine feet; the tops then falling down, cover the tree or shrub it climbeth upon. At about every three inches distance, it puts forth leaves, clavicles, and flowers, at the same place. The leaves stand on two and an half inch long foot-stalks; they are very much divided or lacinated, cut always into nine sections, standing three together on the same common petiole, coming from the end of the footstalk; that division of the three opposite to the end of the petiolus, or in the middle, is the biggest, being two inches long, and one broad where broadest, deeply notched or cut in on the edges, of a dark-green colour, very smooth, soft, and thin; the other two at the base being of the same shape, and only smaller. The clavicles stand opposite to the leaf, being five inches long. *Ex attis foliorum* come the flowers, several together, standing on three-inch long foot-stalks, being white, pentapetalous, and very open. After the flowers follow three-cornered oblong bladders, having in each of them three distinct cells; and in every one of these lies, fastened to a membrane, a round dark-brown or black seed, about the bigness of a small field-pea, having three triangular lines meeting at the centre of a clay-coloured or whitish triangular or cordated spot (and therefore called *pisum cordatum*), which is at the place where it is joined to the bladder or its hilus. The seeds of this plant cause greater sleep than opium; bruised with water and applied, they ease the gout, and coldness of the joints with stiffness; the juice of the leaves, with black cummin seed, is good for heart-burning; and mixed with sugar is good for a cough.—*Barham, p. 142.*

The leaves of this plant, which is very common in Jamaica, are minutely divided, and, from their resemblance to those of *parsley*, it is sometimes called *wild parsley*. It frequently climbs to the top of very high trees.

#### 2. GRANDIFLORUM.—GREAT-FLOWERED.

*Villosum, stylo bifido, staminibus subcoarctatis apposito.* Browne, p. 213.

Leaves pubescent; capsules acuminate, very large, smooth and even.

This

This, like the other species, is frequently found climbing in the lower woods; it grows in the lowlands towards the foot of the Long Mountain; the leaves have the appearance of parsley leaves. All the filaments of the flower are connected at the base, and disposed as it were in a tuft on one side, and opposite to the style.—*Browne*.

See SUPPLE JACK.

HELLEBORINE.

SERAPIAS.

CL. 20, OR. 1.—*Gynandria diandria*. NAT. OR.—*Orchideæ*.

GEN. CHAR.—Calyx wandering spathes, spadix simple, no perianth; corolla five-petaled; nectary length of petals, ovate, gibbous, with an ovate lip; stamens two filaments, with erect anthers, under the lip of the nectary; the pistil has an oblong germ, growing style, and obsolete stigma; the pericarp is an ob-ovate, three-keeled, three-valved, capsule, opening under the keels, one-celled; seeds numerous, saw-dust form; receptacle linear, adjoined to each valve of the pericarp. Swartz discovered two species of this genus in Jamaica.

1. POLYSTACHA. MANY-SPIKED.

Roots fibrous; stem sub-divided, jointed; leaves oblong-lanceolate; raceme compound, terminating; lip of the nectary ovate, recurved.

2. FLAVA. YELLOW.

Roots fibrous; stem sub-divided, jointed; leaves oblong-lanceolate; raceme compound, axillary; lip of the nectary erect, acuminate.

HELL-WEED—See BODDER.

HEMP AGRIMONY.

EUPATORIUM.

CL. 19, OR. 1.—*Syngenesia polygamia equalis*. NAT. OR.—*Compositæ*.

GEN. CHAR.—Common calyx, oblong, imbricate; scales linear, lanceolate, upright, unequal; compound corolla, uniform, tubular; corollæ hermaphrodite, equal; proper funnel-form; border five-cleft, spreading. Stamens five capillary filaments, very short; anthers cylindric, tubular; the pistil has a small germ; a filiform style, very long, two-cleft almost to the germ, straight; stigmas slender; there is no pericarp, calyx unchanged; seeds oblong; down plumose, long; receptacle naked. Twelve species are known to be natives of Jamaica.

The following have four-flowered calyxes:

1. DALIA.

*Fruticosa; foliis oppositis, oblongis, angustis, sub-serratis, utrinque glandatis; racemis terminalibus*. Brown, p. 313, t. 24, f. 1.

Leaves lanceolate, veined, obscurely serrate, smooth; stem shrubby.

This shrub is a fathom in height, with a branched even stem, and long smooth branches.

B b b.

branches. Leaves opposite and decussated, broad lanceolate, four or five inches long, shining, on petioles of a middling length. Corymbs terminating; branchlets opposite, decussated, sub-fastigiate, divided again, two or three-parted, the last three or four-flowered; flowers whitish; calyx six or eight-leaved, conical, small; corollets commonly four, seldom three; stigmas reflex, cirrhose; seeds conical, cordate, crowned with a feathered egret. This is remarkable for the very pleasant odour of the whole plant, which continues many years, even when dried.—Sw.

Browne calls this the shrubby *dalea*, and says it is frequent in the lower hills of Liguanea, rising to the height of nine or ten feet, having a moderate thick ligneous stem, which throws out the branches in a pretty open position.

#### 2. PARVIFLORUM. SMALL-FLOWERED.

Shrubby, leaves ovate-lanceolate, serrate, smooth; corymbs spreading, calyxes three-flowered.

This much resembles the preceding, but the leaves are oblong, the flowers smaller; the calyxes constantly three-flowered, and the plant almost void of scent. It grows in similar situations much more common than the former.

#### 3. HOUSTONI, HOUSTON'S.

Stem twining; leaves ovate, quite entire.

Stalks slender, twining, eight or ten feet high, sending out small opposite branches at most of the upper joints; lower leaves heart-shaped, ending in acute points; upper almost triangular, smooth, and of a lucid green. The upper part of the stalks has long branching stalks of white flowers, which are small and sessile. It was first discovered in Jamaica by Dr. Houston.

#### 4. HASTATUM. HALBERY.

*Scandens; foliis triangularibus, angulis acutis.* Browne, p. 316, t. 34, f. 3.

Leaves cordate-hastate, somewhat toothed, naked; stem twining; flowers in spikes.

Stem shrubby, branched, striated, pubescent; leaves petioled, opposite, petioles also pubescent; racemes axillary, opposite; flowers spiked in whorls, four in a whorl, white. Calyx four-leaved, leaflets lanceolate-ovate, convex; corollets four; stamens extremely minute; style longer; egret bristly, with the bristles very minutely serrate; the flowers smell like those of *cacalia suaveolens*, the taste of the whole herb is bitter.—Swartz. This is a climbing plant, called by Browne the climbing *kleinia*, with triangular leaves, which is frequent, he says, in St. Thomas in the East and Manchioneal, stretching a great way among the neighbouring bushes. The leaves of a triangular figure and very sharp cornered.

*The following have eight-flowered calyxes:*

#### 5. NERVOSUM. NERVOUS.

Leaves elliptic, lanceolate, attenuated, toothed, triple-nerved, smooth on both sides; calyxes many-flowered.

#### 6. ASPERUM.

6. RIGIDUM. RIGID.

Leaves petioled, ovate, acute, serrate-toothed, rigid, rugged underneath; stem sub-herbaceous.

7. MOLLE. WOOLLY.

Leaves petioled, cordate, acute, sub-serrate, pubescent; stem herbaceous, tomentose.

8. VILLOSUM. HAIRY.

*Conyza fruticosa, cisti odore, floribus pallide purpureis summitatibus ramulorum insidentibus, capitulis et semine majoribus* Sloane, v. 1, p. 257, t. 151, f. 2.

Leaves opposite, decussated, ovate, sub-serrate, beneath villose-tomentose; calyxes eight to fifteen-flowered; stem shrubby.

It rises six or seven feet high; has several stems a big as ones thumb, covered with a reddish brown, ropy, or membranaceous, rough bark, and the branches go out one opposite to the other, or sometimes three together, thick set with leaves, standing on short footstalks, about an inch long and half as broad, near the round base, where broadest, the nerves running from the footstalk's end as from a common centre, they are somewhat rough, viscid, and smell like those of *cistus*. The tops are branched out into several footstalks, sustaining several naked heads, like those of *jacobaea*, of a pale purple colour. After these follow many small, light brown, oblong, canulated pappous seeds. It grows in the Red Hills and Mount Diablo plentifully.—Sloane.

9. CORDIFOLIUM. HEART-LEAVED.

Leaves cordate, serrate, tomentose-hirsute underneath; petioles very short; corymbs sub-sessile; calyxes squarrose; stem shrubby.

10. MONTANUM. MOUNTAIN.

*Fruticosum, assurgens, incanum; foliis amplioribus, cordato acuminatis, crenatis; floribus comosis.* Browne, p. 313.

Leaves cordate, acute, tooth-letted, petioled, rugged, hirsute underneath; corymbs much spreading; stem shrubby.

The shrubby ash-coloured *eupatorium*, with opposite leaves and branches, is common in most of the mountains of Jamaica, and rises generally to the height of seven or eight feet. The flowers are disposed pretty thick at the extremity of the branches.

The following have fifteen or more floscules in the calyx.

11. ODORATUM. SWEET-SCENTED.

*Odoratum hirsutum; foliis ovato acuminatis, basin versus crenatis, oppositis; floribus comosis.* Browne, p. 313.

Stem a fathom in height, shrubby, branched, even; leaves opposite, petioled, three-nerved, dotted; flowers terminating, sub-corymbed, white; seeds linear, slightly compressed, with a capillary egret.

This weakly shrubby plant (called *archangel*) is very frequent in the lower hills of Jamaica, and generally observed to grow among other bushes, when it frequently casts

its long, slender, flexile, and opposite branches to a moderate distance. The flowers are sometimes impregnated with a smell perfectly like that of European meadow-sweet; but this is not observed in every plant of the same species, nor constant even in the same blossoms.—*Browne*.

## 12. IVGEFOLIUM. IVY-LEAFED.

Leaves narrow-lanceolate, three-nerved, subserrate; calyxes squarrose, many-flowered.

Stem sub-herbaceous, two feet high, erect, strict, branched, hispid; branches simple, elongated; leaves petioled, opposite, somewhat rugged; lower ones lanceolate, longer, spreading. Peduncles terminating, and in the axils of the upper leaves, opposite, filiform, mostly trichotomous, but the last one-flowered; flowers small, blue. This is common in Jamaica.—*Sw.*

## HERCULES—See PRICKLY YELLOW WOOD.

## No English Name.

## HILLIA.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Contorta*.

This was so named by Jacquin in honour of Sir John Hill, author of many large books on botany.

GEN. CHAR.—Calyx a double perianth; lower six-leaved; leaflets opposite, unequal, oblong, entire; the two inner smaller, embracing the germ, deciduous, coloured; upper two or four-leaved; leaflets lanceolate-acute, erect, permanent; corolla one-petaled; tube cylindric, very long, striated, towards the border ventricose; border six-cleft, clefts long, reflex, contorted, revolute; stamens six very short filaments, inserted below the border into the belly of the tube; anthers oblong, two-celled, within the throat of the corolla; the pistil has an inferior oblong germ, obscurely six-cornered; style filiform, thick, the length of the tube; stigma thickened, compressed, bifid; the pericarp an elongated capsule, angular, two-celled, opening longitudinally into two valves, crowned with the leaflets of the upper calyx; seeds numerous, pappose, round a linear receptacle; down capillary. There are two species, both natives of Jamaica.

## 1. LONGIFLORA. LONG-FLOWERED.

Corollas six-cleft, clefts lanceolate, revolute; leaves ovate, acute.

This is a shrub with an ascending stem, a fathom in height, branched, loose, smooth, brittle, covered with an ash-coloured shining bark; branches simple, leafy, round, smooth, brittle. Leaves opposite, decussated, spreading, entire, scarcely nerved, veinless, very smooth, somewhat rigid, on round smooth petioles. Flowers terminating, sessile, solitary, very long, white, very sweet; upper calyx two-leaved, sometimes but seldom four-leaved; the lower has from four to six leaves; tube of the corolla three or four inches long, segments of the border an inch in length, anthers whitish; stigma clammy, dark green; capsule from one to two inches long, slightly hexagonal.

gonal, grooved; seeds small, oblong, acuminate. It grows in wet coppices on the mountains, is not parasitical, but creeping among old mossy wood; flowering in summer.—*Sw.*

## 2. TETRANDRA. FOUR-STAMENED.

Corollas four-cleft, four-stamened, clefts ovate; leaves ob-ovate.

This is a shrub, and has a sixth and a fifth part less in the fructification than the preceding sort.

## No English Name.

## HIPPOCRATEA.

CL. 3, OR. 1.—*Triandria monogynia*. NAT. OR.—*Acce.*

This is named after the celebrated Hippocrates.

GEN. CHAR.—Calyx a one-leafed five-parted perianth; corolla five-petaled; stamens three filaments, with roundish anthers; the pistil has a roundish germ, three-sided style, and blunt stigma; the pericarp is three capsules, ob-cordate, or elliptic, compressed, large, with two-valved cells; valves keeled and compressed; seeds in fives or sixes, oblong, with a membranaceous wing, at first soft, but hardening like nuts, with oblong kernels. One species is a native of Jamaica.

## VOLUBILIS. TWINING.

Racemes corymbed; leaves ovate-lanceolate, serrate.

Branches sub-divided, bent down, with opposite, rigid, arched, spreading branchlets; leaves petioled, opposite, blunt, stiffish, smooth; racemes terminating, with opposite racemelets; flowers terminating, sub-sessile, crowded, greenish white, minute; capsules an inch long; seeds compressed, dry.—*Sw.*

The following description of this plant is extracted from the manuscript of Mr. Anthony Robinson :

"In going down Cabaritta River, on the right hand, I met with this rare shrub; the stem was round, scandent, and ligneous, of a reddish brown colour, with a whitish cast; it was brittle, smooth, and jointed; from the joints it sent forth side branches, on which grew the leaves by pairs, and the capsules by three's for the most part, and sometimes one or two in a place; by the manner of their growing, I judge that three of these capsules succeed each flower; the largest were about an inch and a half in length, and one and two-tenths in breadth; they were compressed, ovate, thinnest on their sides, and sometimes emarginated, of a thin foliaceous substance, and decorated with many branched veins, rising from the base, and running in an oblique manner to the margins of some, and in others to the summit of the capsule. The capsule splits lengthways into two valves, in the manner of the logwood capsule, and ought to be termed a *depressed*, rather than a *compressed*, capsule. It contains only one cell, in which are, for the most part, two ovate seeds, each adhering to the base of the valve to a small receptacle, and have a margin running down their interior parts, ending in a narrow tail or appendicle at the base. The longest leaves are four inches, and one and three-quarters broad, not unlike a bay-leaf in form, of a thin tough substance, plain edged, deep green, and polished above; pale yellowish green beneath, supported.

ported by crooked very short pedicels, and decorated by a prominent small middle rib, beneath from which proceed oblique, alternate fine veins to the margins. The seeds are excessively bitter, as are the leaves, but not so much. It was in seed about the middle of April."

No English Name.

HIRTELLA.

CL. 5, OR. 1.—*Pentandria monogynia*.

NAT. OR.—*Rosaceæ*.

This was so named from the hairiness of the branches.

GEN. CHAR.—Calyx a one-leaved five-parted perianth; corolla five roundish concave petals; filaments three to five, long, permanent, anthers roundish; the pistil has a roundish germ, a filiform style, and simple stigma; pericarp an oval one-seeded berry; seed large. One species is a native of Jamaica.

TRIANDRA. THREE-STAMENED.

Leaves oblong-acute; racemes compound, loose; flowers three-stamened.

This is a branching tree, twenty feet high, frequently less. Leaves quite entire, shining, on short petioles, alternate, five inches long; racemes terminating, villose, half a foot in length. The flowers have no scent; the stamens and style are placed crosswise; the calycine segments are ovate-roundish, concave, equal, reflex; petals spreading, equal, deciduous, white; filaments three, filiform, flattened at the base, upright, very long, permanent; finally rolled in spirally; anthers roundish; germ roundish, villose, compressed on the side, without any stamen close to it; style filiform, hirsute at the bottom, almost the length of the stamens.—*Jacquin*. It flowers in April and May; the ripe fruit is of a deep purple colour, about three-quarters of an inch in diameter, covered with down or fine hairs; pulp sweetish, smelling and tasting not unlike the coco plum. Within the pulp is an oblong, sub-quadrated, compressed, nut, with longitudinal furrows on it, pointed at the base, including a kernel of the same form, also resembling in taste that of the coco plum.

No English Name.

HOFFMANNIA.

CL. 4, OR. 1.—*Tetrandria monogynia*.

NAT. OR.—*Stellatæ*.

This was so named by Swartz in memory of Maurice Hoffmann, professor of botany at Altorff.

GEN. CHAR.—Calyx a one-leaved perianth, four-toothed, superior; teeth upright, sharp; corolla monopetalous, salver-shaped; tube so short as to be next to none; border four-parted, parts lanceolate, spreading; the stamens have no filaments; anthers four, fixed to the base of the tube, linear-subulate, upright, pressed close to the style; the pistil has an inferior germ, oblong, four-cornered, a subulate style, the length of the stamens, and a blunt scarcely emarginate stigma; the pericarp is an oblong berry, slightly four-cornered, crowned, two-celled, two-valved; seeds numerous, roundish, fixed to receptacles in each cell. There is only one species of this genus.

PEDUNCULATA.



## PEDUNCULATA. PEDUNCLED.

This was discovered by Swartz in Jamaica, but he has given no farther description of the plant than its generic characters.

## HOG-GUM TREE.

## RHUS.

CL. 5, OR. 3.—*Pentandria trigynia*. NAT. OR.—*Dumosa*.

GEN. CHAR.—Calyx a five-parted perianth, inferior, erect, permanent; corolla five ovate petals, from upright spreading; the stamens are five filaments, very short, with small anthers; the pistil has a superior roundish germ, the size of the corolla; styles scarcely any; stigmas three, cordate, small; the pericarp is a roundish one-celled berry; seed one, roundish, bony.

## METOPHUM.

*Terebinthus maxima, pinnis paucioribus majoribus atque rotundioribus, fructu racemoso sparso.* Sloane, v. 2, p. 90, t. 199, f. 3.—  
*Foliis subrotundis, pinnato-quinatis, racemis alaribus.* Browne, p. 177, t. 13, f. 3.

Leaves pinnate-quinate, quite entire, roundish, smooth.

This tree seldom rises to more than twenty-five or thirty-five feet, and is very spreading towards the top. It is furnished with round pinnated leaves, which are seldom above five on every rib; and the flowers which grow in clusters are succeeded by so many reddish succulent capsules. The root runs a great way on the surface of the earth. It sheds its leaves about the months of November and December, getting flowers and leaves in January and February, the flowers sprouting first at the ends of the twigs, of a purplish brown colour; the leaves follow, which are winged, for the most part made up of two pair of pinnae, set opposite to one another, and a fifth at the end. The bark of the tree is whitish or grey, having on several places black spots of shining gum; which, if wetted by the rain, sticks to the skin, and brings it off with it. Pigeons are fond of the berries. On wounding the bark a pellucid juice issues out, which, after a short time, acquires a hard fragile consistence, that is used with success in strengthening plaisters, in the room of Burgundy pitch. Being of a warm discutient nature it may be used with great propriety in all swellings arising from colds, weakness of the vessels, or poverty of the juices, both externally and internally. It is thought to be an extraordinary diuretic, and an admirable vulnerary. Made into pills, it acts like balsam of capivi in stopping gleet. It is called *hog-gum* or *hog-doctor tree*, because it is asserted that wild hogs rub themselves with the juice when wounded, which cures them. When the gum is dry it is a good substitute for shoemaker's wax. Boiled up with castor oil it makes a good salve, or if the salve is intended to dry up a sore, the juice of the cats-claw may be added. When the tree dies there is a great quantity of the dry gum found at the roots.

This gum and its uses are well known in Jamaica. It is so called because hogs, when wounded by the hunters, run to the tree, lance the bark, and rub themselves with the juice, which not only prevents flies coming to the wound, but also heals it. The juice, when it first comes out, is of a yellowish white, and then turns more yellow, and afterwards

wards black, hard, and brittle, like resin. I must confess I do not know the tree itself, but have made great use of its gum; and know by experience, that, inwardly taken, it is an excellent thing in the belly-ache or cholic: Take the juice, when new and fresh gathered, two spoonfuls; mix it with as much water, sweetened with sugar; drink it, it will give ease immediately, and, in four or five hours, give four or five stools; it is also good to put in a clyster. When it is old, it is more of a binding and strengthening quality. Made into pills, and given after purging, it stops a gonorrhoea. Take hog's-lard, four ounces; the same of hog-gum; bees-wax, two ounces; yellow resin, one ounce; round birthwort-root in powder, two ounces; mix, and make a balsam: This is an universal balsam to cleanse old ulcers; it heals them and all green wounds. A plaister of the hog-gum alone eases the gout, and strengthens the part.—*Barham, p. 74.*

Browne notices another species of this genus, a native of Jamaica, which he calls the villous *rhys*, with tetrandrous flowers. *Foliis pinnatis ovato-acuminatis subtus villosis, floribus racemosis tetrandris terminatricibus.*—Browne, p. 186, t. 8, f. 2.—Calyx a small monophyllous perianth, five-parted; the corolla four-petaled, petals lanceolate, reflected; the stamens four erect filaments, longer than the petals; anthers cordate-sagittate; the pistil had a roundish germ, gently depressed, no style, stigmas two small roundish glands, sitting on the top of the germ. Dr. Browne did not see the fruit. He found the plant on the road that leads from New Greenwich to Liguanea, rising from ten to twelve feet high, plentifully furnished with branches towards the top; the flowers very numerous, blowing generally before the shooting of the leaves, or very soon after. Mr. Anthony Robinson also met with this plant in fruit the latter end of July, which he has described as follows: "The fruit grew very thick clustering at the ends of the branches, four generally arising from the same point; they were of an irregular, compressed, globous form, three-tenths of an inch in diameter, placed on a pedicel two-tenths of an inch in length, the outside all over marked thick with small tubercles, in the same manner as a young orange or lemon, which I conjecture were small vessels, filled with a balsamic oil, for in taste they resembled balsam-capivi very much. These capsules split open at the top, and each contained one kidney-shaped, black, shining, but somewhat rugged, seed; the leaves are winged, and resemble those of our common elder in form, consisting of five or six pairs of lightly serrated leaves, placed on a middle rib, terminated by an odd one; these were studded, and, when held to the light, seemed to be perforated with a thousand holes, in the same manner as St. John's wort, and for the same reason."

Several exotic species of this genus have been at different times introduced.

HOG-PLUM—See SPANISH PLUM.

## HOG-WEED.

## BOERHAAVIA.

CL. I, OR. I.—*Monandria monogynia.* NAT. OR.—*Aggregata.*

This was so named in honour of the famous Boerhaave, professor of botany, chemistry, and medicine, in the University of Leyden.

GEN. CHAR.—Calyx an oblong perianth, tubular and angular; corolla one-petaled, bell-shaped, upright, bluntly five-cleft, plaited, seated on the calyx; nectary fleshy,

fleshy, sub-cylindric, with a tooth-letted mouth, surrounding the base of the germ; the stamen, one, two, or three filaments, inserted into the edge of the nectary, between the toothlets, capillary, at bottom (within the calyx) more slender, upright, about the length of the corolla; anthers twin, globular; the pistil has a roundish pedicelled germ; the pedicel surrounded by the nectary; style filiform, twisted, the height of the stamens; stigma capitate. There is no pericarp, the calyx enlarged, closed, incrusts the seed; seed one, oblong, obtuse, angular.— This genus, of which there are three species, natives of Jamaica, is nearly related to *mirabilis*.

## 1. DIFFUSA: DIFFUSED.

*Valerianella folio subrotundo, flore purpureo, semine oblongo, striato, aspero.* Sloane, v. 1, p. 210. *Diffusa, foliis subrotundis subtuscinereis, fructu striato aspero.* Browne, p. 123.

Stem diffused, pubescent; leaves ovate, repand.

This grows very plentifully in the lowlands and savannas, rising two or three feet.— The root is single, oblong, hard within, and a soft thin bark on the outside, of a dusky colour; sending forth many branches, which are round, glossy, diffuse, succulent like those of purslane, jointed. At every joint are two branches, and ovate or roundish leaves, set opposite to one another, of a bright green, and reddish, and sometimes curled at the edges, on short reddish footstalks. The flowers grow very scatteringly, upon long branching peduncles, from the axils, and at the ends of the branches, of a pale red on the outside, deeper within; the stamen and style purple, anther yellow; they are disposed in the form of an umbrella; and are succeeded by brown, oblong, striated, and very rough, seeds. This weed is frequently gathered for hogs, and thought to be very fattening and wholesome food; but they seldom eat the root, which, scraped and made into decoction, is recommended in bloody fluxes and dysenteries. Mr. A. Robinson says he knew it cure a negro whose life was despaired of: The root was washed, and the skin scraped off to the size of two nutmegs, ground upon a stone, and eaten with Jamaica bird peppers, and a little meat; the broth or decoction was also taken, and some laudanum administered. During the cure nothing should be drank cold. This plant grows very commonly near Spanish Town, by the river side.

## 2. SCANDENS. CLIMBING.

*Valerianella alsines folio scandens, floribus pallide luteis pyxidatis in umbellæ modum dispositis, semine aspero.* Sloane, v. 1, p. 210.— *Sarmentosa floribus herbaceis diandris campanulatis, foliis succulentis obtuse triangularibus, fructu ad apicem verrucoso.* Browne, p. 123.

Stem erect; flowers two-stamened; leaves cordate-acute.

This plant is common in the lowlands, and grows plentifully about Kingston and Spanish Town. It sends out several stalks from the root, which divides into many branches, and trail over whatever plants grow near them for three or four yards. The leaves grow by pairs at each joint, on long footstalks; are succulent, and of the colour and consistence of the greater chickweed. The flowers grow in loose umbels at the extremity of the branches, of a dirty yellow colour, and are succeeded by small, oblong,

C c c

viscous.

viscous, seeds, echinated round the top, but smooth below. Barham says this is a cooling and moistening herb, which he calls *valerian*. It has generally three stamens in the flowers.

3. HIRSUTA. SHAGGY.

Stem diffused, pubescent; leaves ovate, repand.

This sends out many trailing hairy stalks, which divides into smaller branches. At the axils come out naked peduncles, sustaining small close heads of scarlet flowers, which are very fugacious, seldom standing more than half a day before their petals drop; they are succeeded by short oblong seeds.

HOLLY OR SAGE-ROSE.

TURNERA.

CL. 5, OR. 3.—*Pentandria trigynia*. NAT. OR.—*Columnifera*.

This was so named in memory of William Turner, M. D. author of an Herbal, in 1551.

GEN. CHAR.—Calyx a one-leaved perianth, funnel-form, deciduous, border erect, five-parted; the corolla five petals, ob-cordate, acuminate, flat, from upright spreading, with narrow claws, inserted into the calyx; the stamens are five filaments, awl-shaped, shorter than the corolla, inserted into the tube of the calyx, with acuminate erect anthers; the pistil has a conical germ; three-filiform styles, the length of the stamens, with capillaceous multifid stigmas; the pericarp is an ovate capsule, one-celled, three valved; receptacles annexed to the valves longitudinally, linear; seeds numerous, oblong, obtuse. Three species are natives of Jamaica.

1. ULMIFOLIA. ELM-LEAVED.

*Cistus urticae folio, flore luteo, vasculis trigonis*. Sloane, v. 1, p. 202, t. 127, f. 4, 5. *E petiolis florens, foliis serratis*. Browne, p. 189.

Flowers sessile, petiolar; leaves biglandular at the base.

Stem shrubby, eight or ten feet high, sending out branches on every side the whole length. Leaves ovate-lanceolate, two inches and a half long, and an inch and a half broad, rough on their upper side, and of a lucid green, their under side has many strong veins, and of a lighter green, the edges are serrate; the flowers sit close upon the footstalks of the leaves, having two pretty large leafy appendices to the calyx; they are orange coloured, and very large. The capsule is superior, ovate, indistinctly three-cornered, pubescent, opening from the top to the middle in three parts. Receptacle three raised lines, inscribed longitudinally on the inner wall of the capsule, accompanied by very numerous, short, umbilical chords; seeds slightly curved inwards, attenuated towards the navel, scored with many minute excavations in rows, chesnut brown; aril halved, tongue-shaped, membranaceous, thin, whitish, lying on the concave part of the seed, free on all sides, inserted into the navel.—*Gartner*. This grows in great abundance in the Red Hills, and vicinity of Spanish Town, where it seldom rises above four or five feet, with a shrubby weakly stalk, adorned with a few serrated

ovoid

oval leaves, and bears large yellow flowers; that have somewhat the appearance of the malvaceous tribe at first sight.—*Browne*. Sloane's plant is thought to be a variety of this, the leaves of which emit a disagreeable smell on being rubbed. Barham observes that the flowers opened wide just at eleven in the forenoon.

2. PUMILEA. DWARF.

*Chamæcistus urticæ folio, flore luteo.* Sloane, v. 1, p. 202; t. 127, f. 6. *Minima sub-hirsuta, foliolis angustis profunde serratis.*—*Browne*, p. 188.

Flowers sessile, petiolar, without glands.

Root annual, branching, thready; stem herbaceous, from three to six inches high, branched, nearly upright, but often decumbent, round, hirsute; branches simple, erect. Leaves alternate, distant, broad lanceolate, short, deeply serrate, nerved, hirsute; clustered towards the ends of the branchlets, spreading; petioles round, short, hirsute, terminating, flower-bearing. Stipules two, linear, erect, at the base of the leaves, within which is a small yellow flower, scarcely open; flowers terminating, clustered, in the centre of the leaves; calyx corolliferous, connate with the corolla; segments linear, acute, pressed to the corolla, erect, hirsute. Corolla deciduous; claws linear, long, roundish at top, veined, orange; border convoluted, so that the corolla is scarcely open; filaments of the same length with the petals, erect; anthers oblong, blue, germ ovate; valves of the capsule ovate, acute, revolute; seeds roundish, compressed, wrinkled. It grows in dry sandy fields; flowering towards the end of the year.—*Swartz*. *Browne* named this plant *pumilea* from its smallness; he says it grew about Old Harbour and the foot of Liguanea mountains, is always simple and upright, and never rises more than two or three inches; the flowers always solitary, from the axils of the upper leaves. It is to be found in most savannas after rain.

3. CISTHODES. CISTUS-LIKE.

*Chamæcistus caute hirsuto, folio oblongo, angusto, sinuato, flore luteo, pediculo incidente.* Sloane, v. 1, p. 202, t. 127, f. 7. *Sub-hirsuta, simplex, foliis linearibus sub-crenatis.* *Browne*, p. 189.

Peduncles axillary; leafless; leaves serrate at the top.

Root annual, undivided, long, erect, white, thready; stem sub-divided, erect, half a foot high, round, hirsute, with alternate spreading branches. Leaves on short petioles, linear-lanceolate, bluntish, spreading; toothed or serrate, nerved, somewhat hispid; bractes none; flowers solitary in the axils, peduncled and not sessile on the petioles, yellow, small; peduncles shorter than the leaves, round, filiform, hirsute; calyx corolliferous; segments lanceolate, acute; petals contiguous, rounded, entire, slightly striated. Filaments shorter by half than the petals from the base of the corolla; anthers oblong, vertical, yellow; germ oblong, sub-trigonal, styles diverging; stigmas pencilled; capsule roundish; valves ovate-revolute; seeds minute, roundish, ferruginous.—*Sw*.

The stalks come up sometimes single and sometimes two or three together, covered with a reddish coloured hair or prickles. *Browne* says it seldom rises above four inches.

## No English Name

## RHOMALIUM.

CL. 13, OR. 3.—*Polyandria trigynia*. NAT. OR.—*Rosaceæ*.

GEN. CHAR.—Calyx a one-leaved perianth, six or seven parted; corolla six or seven petaloid, petals longer than the calyx, very spreading; nectary six or seven glands, flat, alternate with the petals; stamens eighteen to twenty-eight subulate filaments, upright, the length of the corolla, of which three or four are inserted into the receptacle among the glands before the base of the petals; anthers roundish, small; the pistil has a roundish germ, three upright styles, with simple stigmas; the pericarp is a woody, ovate, one-celled capsule; seeds very many and very small. There are two species, one of which is a native of Jamaica.

RACEMOSUM. BUNCHED.

Leaves serrate; racemes axillary and terminating; flowers peduncled.

This is a lofty branching tree, with the habit and leaves of elm. Flowers racemed, flat; stamens sometimes eighteen, so that there are three before each petal.—Sw.

HONEYSUCKLE—See FRENCH HONEYSUCKLE, and PASSION FLOWERS.

HOOP TREE—See BEAD TREE.

## HOOP-WITHE.

## RIVINA.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Holoraceæ*.

So named in honour of Rivinus, professor of physiology and medicine at Leipsic.

GEN. CHAR.—Calyx a four-leaved coloured perianth, permanent, leaflets oblong-ovate, blunt; there is no corolla; the stamens four or eight filaments, shorter than the calyx, approaching by pairs, permanent; anthers small; the pistil has a large roundish germ, a very short style, and a simple blunt stigma; the pericarp is a globular berry, placed on the germ, reflex calyx, one-celled, with a point curved in; seed one, roundish, lens-shaped, rugged. Two species are natives of Jamaica.

I. OCTANDRA. EIGHT-STAMENED.

*Sarmentosa, sarmentis crassioribus, foliis ovatis, floribus spicatis decandris*. Browne, p. 149, t. 23, f. 2.

Racemes simple; flowers eight or twelve stamened; leaves elliptic, smooth.

This plant is very common in the lowlands, and stretches a great way among the neighbouring shrubs and bushes; the main stalk grows to a moderate thickness, being seldom under an inch or two in diameter, and throws out a few slender branches towards the top, which are generally adorned with flowers at their extremities. The berries make the principal part of the food of the American thrush, or nightingale, while they are in season; they contain a very oily seed, and, after that bird has swallowed a good many of them, you may frequently observe it to fly to the next bird-pepper-bush, and pick a few of these warm berries also: nature doubtless has taught it what

what was necessary to promote the digestion of that oleaginous heavy food. The stalk is very tough and flexible, and often made into hoops, when there is a scarcity of those imported from Europe or America, but they are not so strong or durable, and therefore used only in time of need.—*Browne*.

*Coopers' Withe*.—This withy plant is so called because coopers make hoops of its stalks or withes, being very tough and flexible; and although this plant doth not climb or twist round other plants, yet it cannot support itself, but, growing by the side of any tree, it leans upon it, and, by its many branches, will overspread it. It hath a leaf of the breadth and shape of laurel leaf, but not so thick or glossy; its flowers are inodorous, mixed with purple streaks; and then follow small round berries, growing all along the spikes or twigs of the shrub, in colour, shape, and bigness of elder berries, for which reason some call it Spanish elder; but that is another plant. It hath an uncommon excrescence, that is found growing among the branches at one time of the year, which is in shape exactly like the stomach of a man, having a thin membrane or skin over it, interwoven variously with innumerable small reddish veins; it adheres to a tender soft stalk, which runs through the upper part of the excrescence. This plant is of divers physical uses. Bess Walker, who kept a tavern in Port Royal in Jamaica, before the great earthquake in 1692, used to make a famous drink, reckoned of use in venereal cases; for which she boiled the young tender withe, sliced in water, with a little *lignum vite* bark, worked it up with sugar or melasses, and then bottled it; it drank brisk like bottled ale, only bitterish. It is a good stomachic, and opens obstructions. The Indians make a bath of this plant; they strip naked, and place themselves so as to receive the fumes or steam of the liquor, being covered all over with a blanket or pavilion, after which they are put to bed, and rubbed very well; by this method, they recover the use of their weak and numbed limbs, and comfort their bowels.—*Barham*, p. 46.

#### 2. HUMILIS. HUMBLE.

*Dichotoma erecta, foliis ovato acuminatis, spicis laxis lateralibus assurgentibus.* *Browne*, p. 148.

Racemes simple; flowers four-stamened; leaves pubescent.

This *Browne* calls the smaller *rivinia*, with scarlet berries, which grows very common in St. Ann's, and in most places in the mountains where the soil is sandy and well shaded; it rises commonly to the height of three or four feet, or more, well furnished with berries towards the top, which are succulent, and of a fine scarlet colour, but the juice is apt to change.—*Browne*. This plant is the *piercia* of *Miller*. The juice of the berries of this genus of plants are said to form a beautiful stain, of a bright red colour, for paper, linen, or flowers.

Hops, WILD—See WILD HOPS.

#### HORN FLOWER.

#### ANTHOCEROS.

CL. 24, OR. 3.—*Cryptogamia hepaticæ.* NAT. OR.—

GEN. CHAR.—Male calyx six-parted, or entire; anthers three to eight, ob-ovate,  
is

in the bottom of the calyx. Female calyx sessile, cylindrical, entire; capsule subulate, long, two-valved.

CRISPUS. CURLED.

*Niveus, varie lobatus et corniculatus, lobis angustis integris.*—  
Browne, p. 86.

Frond sinuate and jagged, undulate, curled on the margin, not dotted.

This beautiful little plant is frequent enough in the mountains of New Liguanea, and receives much additional elegance from those slender and hollow conic appendices that rise from the margin of the leaves, or lobes, in every part. The seed capsules seem raised from the body of the leaf; they are of a compressed form, and open into two receding spiral valves.—*Browne.*

HORN WORT—*See MORASS WEED.*

### HORSE BEAN.

### DOLICHOS.

CL. 17, OR. 4.—*Diadelphia decandria.*

NAT. OR.—*Papilionaceæ.*

GEN. CHAR.—*See Cat-Claws, p. 166.*

ENSIFORMIS. SWORD-SHAPED.

*Phaseolus maximus, siliqua ensiformi nervis insignita, et semine albo, membranulo incluso.* Sloane, v. 1, p. 177, t. 114, f. 1, 2, 3.  
*Sub-erectus major, siliquis maximis oblongis glabris, satura altera nervo majori utrinque insignita.* Browne, p. 291.

Legumes gladiate, three-keeled at the back; seeds arilled.

The stem of this is between upright and climbing, seldom rising above three or four feet, though it emits slender, delicate shoots, which run much further. The leaves, which are always three together, and flowers, come out at every inch distance, standing on a two inches long footstalk, which has a swelling near the stem. The flowers stand several together on the same peduncle; they are close, and of a blueish purple colour; after which follows the large falcated legume, from ten to fourteen inches in length, and generally containing ten or eleven seeds, which are white, with a saffron coloured hile, and thought of a deleterious nature. The two upper teeth of the calyx large ovate, bent back by the banner; the three under very small, sharp pointed, tooth-like. Sloane says they fatten hogs.

*See CAT-CLAWS—COWITCH—and the FOLLOWING ARTICLE.*

### HORSE OR OX-EYE BEAN.

### DOLICHOS.

CL. 17, OR. 4.—*Diadelphia decandria.*

NAT. OR.—*Papilionaceæ.*

GEN. CHAR.—*See Cat-Claws, p. 160.*

URENS. STINGING.

*Phaseolus Brasiliensis frutescens, lobis villosis, pungentibus maximis.*  
Sloane.



Sloane, v. 1, p. 178. *Siliquis majoribus hirtis transverse sulcatis, pedunculis communibus tenuibus longissimis flexilibusque appensis.*  
Browne, p. 295.

Legumes in racemes, with furrows transversely lanceolate; the seeds surrounded with a scar.

This has a round green stem, about the thickness of a goose quill, which climbs to the top of the highest trees. The leaves are three always together, sub-ovate, quite entire, acuminate, the upper surface smooth, the lower covered with a shining silvery down. Racemes simple, pendulous, scarcely ever longer than the leaves; proper peduncles one-flowered, in three's, placed closely at the end of the raceme, and hence forming a very elegant pendulous wreath of about eighteen flowers, which have no scent, are about two inches long, have a ferruginous calyx, and a yellow corolla, with the lower edge of the wings red. The legume is from three to six inches long, the surface has sharp small prickles, and contain round beans, about an inch diameter, flat, of a light brown colour, with a black hilus almost round them, looking like a horse's eye; whence the name. Plumier says they were eaten by the Caribs, and the juice of the leaves used for dyeing a black colour. They are, however, of a poisonous quality.—Snuff boxes and buttons are made of these beans.

See CAT. CLAWS—COWITCH—HORSE BEAN.

# HORSE CASSIA.

# CASSIA.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Lomentaceae.*

GEN. CHAR.—See Cane-Piece Sensitive, p. 151.

JAVANICA. JAVA.

*Cassia nigra seu fistulosa secunda sive cassia fistula Brasiliana.*—  
Sloane, v. 2, p. 44. *Foliis plurimis oblongis pinnatis, flore rubello, siliquis maximis, crassioribus trinerviis.* Browne, p. 223.

Leaflets twelve pairs, oblong, obtuse, smooth; no gland.

This tree grows to a moderate size, stretching frequently to the height of eighteen or twenty feet. Leaves very long, composed of twelve or fourteen pairs of smooth leaflets, of a light green, placed near together. The flowers come out in loose spikes at the ends of the branches, of a pale carnation colour, and succeeded by large cylindrical pods, having each three considerable nerves, running the whole length of them, from the footstalk to the top; two of these are close together, and run along the back suture, the other alone, and fixed opposite to them; it is divided into many cells by transverse partitions, in which the seeds are lodged, surrounded with a black purging pulp.—This is called *horse cassia*, because it is generally given to horses, but seldom used by the human species, on account of its griping quality. It grows in lowland woods by the sides of rivulets. Piso says before the fruit is ripe it is astringent, but after loosening; the tops of the leaves applied cure wounds.

See CANE-PIECE SENSITIVE—CASSIA-STICK-TREE—RINGWORM-BUSH—SENNA TREES  
—STINKING-WEED—WILD INDIGO.

HORSE

## HORSE PURSLANE.

## TRIANTHEMA.

CL. 10, OR. 2.—*Decandria digynia*. NAT. OR.—*Succulentæ*.

GEN. CHAR.—Calyx a five-leaved perianth, leaflets oblong, coloured within, mucronate below the tip; no corolla; stamens from five to twelve filaments, with roundish anthers; the pistil has a retuse germ, one or two styles, with simple stigmas; the pericarp is an oblong truncate capsule, retuse, cut round, two-celled; seeds solitary or two, sub-ovate. One species is a native of Jamaica.

MONOGYNA. ONE-STYLED.

*Portulaca affinis, folio subrotundo succulento, flore pentapetalo dilute purpureo.* Sloane, v. 1, p. 205.

Flowers five-stamened, one-styled.

Stems depressed, sub-dichotomous, jointed, even, pubescent on the upper side; leaves opposite, petioled, oval, obtuse, quite entire, with a red margin; one of the leaves always less than the other; petioles two-toothed, shorter than the leaf; flowers axillary, sessile, five-leaved, oval, composed as it were of a calyx and corolla together; under them two awl-shaped permanent bractes; filaments six to ten, shorter than the calyx; anthers oval, twin; germ half-inferior, retuse, two-horned; style length of the flower.—*Lin. Mant.*

This has trailing, round, smooth, green, branches, three feet long, lying on the surface of the ground, and having much the appearance of purslane, with fleshy succulent leaves, almost-oval; it has a swell at every joint, branched at every inch and a half; branches opposite. The flowers come out from the joints, of a purple colour; the capsules have two horns; the seeds are round and black. It grows in several places in the streets of Spanish Town.—*Sloane.*

## HORSE RADDISH.

## COCHLEARIA.

CL. 15, OR. 1.—*Tetradynamia siliculosa*. NAT. OR.—*Siliquosæ*.

This is so named from the form of the leaves, resembling an old-fashioned spoon.

GEN. CHAR.—Calyx a four-leaved perianth; corolla four-petaled, cruciform; stamens six filaments, two shorter, with obtuse compressed anthers; the pistil has a heart-shaped germ, a simple style, and obtuse stigma; the pericarp is a heart-shaped silicle, gibbous, turgid-emarginate, scabrous; valves gibbous-obtuse.

ARMORACIA.

Root leaves lanceolate-crenate; stem leaves gashed.

This useful plant has been long introduced into Jamaica, where it thrives and seeds luxuriantly, and frequently grows without cultivation or care, appearing almost like a native.

Horse-raddish root has a quick pungent smell, and a penetrating acrid taste; it nevertheless contains, in certain vessels, a sweet juice, which sometimes exudes on the surface. By drying it loses all its acrimony, becoming first sweetish, and then almost

almost insipid: if kept in a cool place in sand, it retains its qualities for a considerable time. The medical effects of it are to stimulate the solids, attenuate the juices, and promote the fluid secretions; it seems to extend its action through the whole habit, and to affect the minutest glands. It has frequently done service in some kinds of scurvy, and other chronic disorders proceeding from a viscosity of the juices, or obstructions of the excretory ducts. Sydenham recommends it likewise in dropsies, particularly those which follow intermittent fevers. It is also extolled in cases of the stone.—Both water and rectified spirit extract the virtues of this root, by infusion, and elevate them in distillations: along with the aqueous fluid an essential oil rises, possessing the whole taste and pungency of the horse radish. Dr. Cullen says, "The root externally applied readily inflames the skin, and proves a rubefascient that may be employed with advantage in palsy and rheumatism; and, if its application be long continued, it produces blisters. Taken internally, one drachm of the root, fresh, scraped down, was enough for four ounces of water, to be infused in a close vessel for two hours, and made into a syrup, with double its weight of sugar; a tea-spoonful of which swallowed leisurely, or at least repeated two or three times, has often been found very suddenly effectual in relieving hoarsenesses. Received into the stomach, this root promotes digestion, and therefore is properly employed as a condiment with animal food. If it be infused in water, and a portion of the infusion be taken with a large draught of warm water, it readily proves emetic, and may either be employed to excite vomiting, or to assist the operation of emetics."

## HORSE RADDISH TREE.

## GUILANDINA.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Lomentaceæ.*

This was so named in honour of Guilandinus, of Prussia, a great traveller.

GEN. CHAR.—Calyx a one-leafed perianth; tube short, turbinate, permanent, an oblique mouth; border five-parted, nearly equal, spreading, deciduous; divisions oblong, broader on the outside and rounded; the two upper ones a little shorter, the lowest a little longer; the corolla five unequal petals, inserted into the neck of the calyx; the uppermost roundish, concave, ascending, a little shorter, (but broader, resembling the vexillum of a papilionaceous flower) the rest oblong, broader in front, rounded at the tip, reflex-spreading, longer than the calyx, and the two lowest a little longer than the middle ones. Stamens, eight, nine, or ten, subulate filaments, thicker at the base and villose, decumbent, inserted into the neck of the calyx, shorter than the corolla, unequal; the lower ones gradually longer; anthers oblong, affixed to the back; the pistil has an oblong germ, a filiform permanent style, the length of the stamens, and a simple stigma; the pericarp is a rhomboidal legume, the upper suture convex, from swelling compressed, one-celled, with transverse partitions; seeds bony, globular-compressed, solitary between the partitions. Two species of this genus are natives of Jamaica, for which—see *nickars*. The *moringa*, or horse radish tree, has been very erroneously referred to this genus.

## MORINGA.

Unarmed, leaves sub-bipinnate; lower leaflets ternate.

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This plant is certainly a different genus from *guilandina*, as will appear by the following characters given of it by Swartz. It is the *hyperanthera moringa* of Vahl.—The calyx is five-leaved, three upper, two lower, all equal, bent back, lanceolate, obtuse, coloured, whitish or pale red, pubescent; corolla five-petaled, four of them anterior, equal, bent down, pale; one posterior, erect, a little larger, whitish, the base nectareous; the filaments are five (nine, but only five fertile), longer, being the length of the larger petal and upright; anthers cordate, incurvated, fertile, yellow; the five shorter ones barren; germ lengthened out, three-cornered, acuminate, pubescent; style subulate, short; stigma acute; legume two feet long, streaked, three-valved, one-celled; seeds fifteen or sixteen, distinct, placed longitudinally, oblong, three-cornered, with three membranaceous wings.

This tree is a native of the East Indies, and was introduced into this island in the year 1784 by Mr. East; since which it has been generally cultivated on account of its beauty and quick growth, and has thriven well in almost every situation. It has a thick root of a soft substance, the young parts of which are scraped, and used in the manner of horse-raddish, for which it is considered a very good substitute, having much the same sharp taste, as have also the seeds. It grows about twenty feet high, and has an ash-coloured bark, with numerous, rather erect, branches. The leaves are irregularly triplicate, pinnate, with an odd leaf; the leaflets small and oval, standing on slender purplish pedicels, waving beautifully in the wind. The flowers grow on the wings of the stalks, in long, axillary, round, pubescent, sub-divided, many-flowered racemes, of a white colour, tinged lightly with yellow at the base; the sub-divisions branched, directed one way, bent down, having under them minute deciduous scales. Being of quick growth, this pretty little tree is frequently planted in Jamaica for fences and along garden walks, and is generally known by the name of *moringa*. The wood dyes a blue colour, and sheep are said to be fond of the seeds; from which a fine oil may be extracted, in the manner it is from oil nuts.

See NICKARS.

## HORSE-TAIL.

## EQUISETUM.

CL. 24, OR. 1.—*Cryptogamia filices.* NAT. OR.—*Filices.*

GEN. CHAR.—Fructifications disposed into a long ovate-oblong spike; each orbiculate, gaping at the base, with several valves, connected by a flat shield-shaped top. Browne notices two species, which he found in Jamaica.

### 1. GIGANTEUM. GIANT.

*Assurgens majus, ramis verticillatis simplicibus.* Browne, p. 108.

Stems streaked, arborescent; fronds simple, strict, spike-bearing.

Browne calls this the larger *horse tail*, with simple branches, and says he observed this and the following species in the parish of St. Mary, where they shoot very luxuriously. The dried plants of both are used by cabinet makers to polish their work, the surface of every part of them being like a fine file, and furnished with short delicate denticles, that rub off the smaller protuberances of the wood by degrees, and leave the surface smooth and shining.

### 2. SYLVATICUM.

## 2. SYLVATICUM.

*Assurgens ramosum et verticillatum.* Browne, p. 108.

Stem spiked; fronds compound.

No English Name.

HYPELATE.

CL. 23, OR. 1.—*Polygamia monoecia*, NAT. OR.—

This was so named by Browne from two Greek words signifying fir-tree.

GEN. CHAR.—Calyx of the hermaphrodite flower a five-leaved perianth, leaflets ovate, concave, spreading, deciduous, two less than the others; the corolla has five petals, ovate, a little less than the calyx, deciduous, with a nectariferous umbilicus about the germ; the stamens are eight spreading filaments, round the base of the germ, the length of the corolla, with ovate-cordate anthers; the pistil has a globular superior germ; a short upright style; stigma bent down, three-sided, three-grooved, acute; the pericarp a pulpy roundish drupe; seed an oval nut, very smooth, with a single kernel. The male flowers, on the same tree but on a distinct panicle, have the calyx and corolla as in the hermaphrodite; the nectary also as in that, from the middle of this; the stamens are eight filaments, converging at the base, from erect reflex and ascending, broader at the base, with ovate-cordate anthers; the pistil a three-cornered rudiment of a germ; style awl-shaped, very small. There is only one species, a native of Jamaica.

## TRIFOLIATA. THREE-LEAVED.

*Cytisus arboreus, foliis obtusis glabris, foliorum pediculis alatis.*—  
Sloane, v. 2, p. 33, t. 176, f. 1. *Fruticosa foliis ob-ovatis, pinnato ternatis, petiolo marginato affixis.* Browne, p. 208.

This shrubby tree has several trunks as big as the human leg, which seldom rise above eight or nine feet, and is common in the lowlands. The bark is naturally of a brown colour, but appears of different colours, from its being covered with ligneous crustacea. The trunk is divided a little above the ground into many slender branches, and these again into slender twigs, all round beset with leaves of the same texture and grain as those of *lignum vitæ*, but remarkably different in form and disposition, being in an alternate order; the pedicels an inch and a quarter in length, decorated on each side by a foliaceous margin, supporting one pair of ob-ovate lobes, with an odd-one at the end, sessile and ternate, close to each other, having no proper pedicel; they are of a lively green, and elegantly marked with slender oblique veins, rising from the mid-rib, shining, smooth, and of a firm texture. The corolla and calyx are not easily distinguished from each other, the two interior leaves of the calyx appearing like two petals, so great is their similitude. The fruit is a small drupe of an ovate form, and splendid black colour, about three-eighths of an inch long. The pulp is sweet, resembling a mixture of sugar and water; the kernel greenish, in which the seminal leaves are obvious, and inclosed in an ovate, smooth, hard, ligneous, monocapsular, shell. The fruit ripens in September.

## JACK-TREE.

## ARTOCARPUS.

CL. 21, OR. 1.—*Monocia manandria*. NAT. OR.—*Urtica*.

GEN. CHAR.—See Bread-Fruit, p. 111.

INTEGRIFOLIA. ENTIRE-LEAVED.

Leaves entire.

The male flowers are arranged along the surface of a thick fleshy oblong receptacle; the anthers are sessile and adhere, appearing as yellow points; the female flowers are arranged along the surface of a similar receptacle, and appear as so many clammy points to catch the dust of the anthers. At the root of its receptacle, where the footstalk enters, is a protuberant ring, and the receptacle and young shoot together are at first inclosed by a coloured spathe, which quickly drops off. The male flowers, having impregnated the female, that receptacle turns black, withers, and drops off. The female receptacle or germ enlarges to the fruit, which contains a number of naked seeds, oval, and smooth, when fresh, but, when dry, the outer skin shrivels up. The seed has an eye near the middle, and consists of only one lobe, or cotyloid. The root is perennial, the stem cylindrical.

This beautiful and excellent fruit tree was brought to Jamaica in his Majesty's ship Providence, in the year 1793, at the same time that the bread-fruit was introduced, and has been since very generally cultivated, as it thrives well in almost every part of the island. Its growth is rapid, and it rises in a beautiful pyramidal form, branching almost to the ground, with a very dense foliage, to a considerable size. A tree twelve years old, from the seed, measured twenty-five feet high, and the stem was full fifteen inches in diameter; the branches extended fifteen feet on each side. The bark of both trunk and branches has many knotty protuberances. The branches are spreading, and shoot out alternately; the twigs have little brown excrescences, or prominent dots; the leaves are ovate-oblong, smooth, shining, dark green above, and pale green below, from six to eight inches long, and three to four broad, in a luxuriant tree; they come out alternately from the ends of the twigs, covered with, or wrapped in, stipules in pairs, which speedily fall off and expose the young leaves, somewhat hirsute and serrate, which disappear as they grow old. The leaves have a strong mid-rib and prominent veins. The peduncles are frequently more than an inch thick, and a foot or two long, having leaves, with two or three, or more, strong pedicels, all pendulous, from the great weight of the fruit, which often weighs from twenty-five to thirty pounds. The peduncles shoot from the sides of the branches and trunk of the tree.—The fruit is very large and of an irregular figure, inclining to oval, having a very rough-warted coat, which contains a multitude of seeds, enveloped in a thick gelatinous covering, which, eaten either raw, or fried, is delicious; the seeds are nearly round, about half an inch in diameter, and, eaten roasted, have a very mealy and agreeable taste. Every part of this fruit, except the seeds, has a strong disagreeable smell, which is removed by washing in salt and water. The tree bears almost all the year round, containing at the same time fruit of all sizes. Every part of this plant is full of a milky clammy juice, of an insipid taste, and easily convertible into caoutchouc.—The wood is of a soft brittle nature, and of no use in building; it is propagated from seeds, which grow very quickly.

Garten

Gærtner says that this tree is not easily distinguished from the bread-fruit, which is a great mistake, for no two trees can be more unlike each other in their general appearance. One lobe of a bread-fruit leaf, of which it contains ten or twelve, is much larger than a whole leaf of the jack-fruit; and the foliage of the former is light green, while that of the latter is a very dark green, colour. The parts of fructification in both are very similar, but the fruit itself has no resemblance in shape; the bread-fruit being almost circular, the jack an irregular, crooked, oval, figure; both fruits are warted all over their surfaces. The bread-fruit has no smell, the jack a very strong and disagreeable one.

See BREAD-FRUIT.

JACK IN THE BOX.

HERNANDIA.

CL. 21, OR. 3.—*Monocelia triandria*.

NAT. OR.—*Tricocca*.

This was named in honour of Francis Hernandez, author of a History of Mexico.

GEN. CHAR.—Male calyx a four-leaved, partial, three-flowered, involucre; corolla six-petaled; nectary six glands; stamens three filaments, with upright anthers. Female calyx an involucre common with the males; perianth inferior, one-leaved; corolla eight-petaled; nectary four glands; the pistil has a roundish germ, a filiform style, and oblique stigma; the pericarp a dry ovate drupe, eight-furrowed, one-celled, inclosed in a very large, inflated, fleshy, coloured, perianth, with the mouth entire; seed a globular nut, slightly depressed. There are two species, but it is doubtful whether either of them is a native of Jamaica.

SONORA. WHISTLING.

*Arborea foliis cordato-peltatis, capsula tenui aperta.* Browne, p. 373.

Browne saw this tree in Barbadoes and Montserrat, but not in Jamaica; but adds that he was credibly informed it grew in the parish of Portland. The sonora, or common jack in a box, is a native of both the Indies. It grows twenty or thirty feet high; and is garnished with broad peltated leaves, and monoecious flowers, succeeded by a large swollen hollow fruit, formed of the calyx; having a hole or open at the end, and a hard nut within. The wind blowing into the cavity of this fruit makes a very whistling and rattling noise, whence comes the name.

The sonora, in Java, affords a sure antidote against poison, if you either put its small roots on the wounds or eat them; as was discovered to Rumphius by a captive woman, in the war between the people of Macassar and the Dutch, in the year 1667.—The soldiers of the former always carry this root about them, as a remedy against wounds with poisonous arrows.

This tree is common in the Windward Isles, and is said to be frequent in the woods of Portland parish. The cups that sustain the nuts are large, and the wind, blowing into the cavity, causes a sonorous whistling noise, very often alarming to travellers.—The seeds are very full of oil, and may be applicable probably to a variety of necessary purposes.

JACK IN THE BUSH—See WILD-SAGE.

No English Name.

JACQUINTIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Dumosa.*

This was so named in honour of the celebrated Joseph de Jacquin, professor of botany at Vienna, and author of many splendid works.

GEN. CHAR.—Calyx a five-leaved perianth; leaflets roundish, concave, permanent; corolla one-petalled; tube bell-shaped, ventricose, longer than the calyx; border ten-cleft; divisions roundish, of which the five interior ones are shorter; the stamens are five filaments, awl-shaped, arising from the receptacle, with spear-shaped anthers; the pistil has an ovate germ, style the length of the stamens, stigma headed; the pericarp is a roundish berry, acuminate, one-celled; seed single, roundish, cartilaginous. One species is a native of Jamaica.

ARMILLARIS.

BRACELET.

*Arbor baccifera, laurifolia, fructu corallino rubrum instar racemoso, calyculato, venenato.* Sloane, v. 2, p. 89, t. 190, f. 2. *Xyloceste. Fruticosum; foliis elliptico ovatis, subtus cinereis; pedunculis ramosis, alaribus.* Browne, p. 372.

Leaves obtuse, coriaceous; flowers in racemes; berries four-seeded, or thereabouts.

This is a very elegant shrub, seldom more than four or five feet high. (Sloane saw one fifteen feet high). The trunk round, thicker and knobbed where the branches come out, covered with an ash-coloured bark; branches four or five from each joint towards the top, in whorls, spreading, stiff, round, grooved, brittle, hoary, subdivided, and forming altogether a neat globular head. Leaves scattered, alternate, petioled; clustered towards the ends of the twigs, wedge-shaped, ovate, obtusely margined, quite entire, veinless, smooth, pale underneath, with very minute black dots. According to Jacquin, they are of different shapes between oblong and roundish, sometimes blunt, sometimes emarginate, but always with a little rigid point, narrowing into a very short petiole, and sometimes rolled back at the sides. Racemes terminating, commonly shorter than the leaves, about two inches long, solitary, erect, loose, simple, seven-flowered or thereabouts; peduncles scattered, spreading, one-flowered; flowers small, stiffish, white, smelling like jasmine, and retaining their sweet scent several days. Tube of the corolla narrower at the base, dilated above; the five outer segments are spreading and oblong, the five inner inserted into the throat between the outer ones, roundish, crenulate, erect. Filaments from the base of the corolla, shorter than the tube; anthers ovate, white; germ superior; style short, permanent; stigma blunt, purple; berry roundish, smooth; the size of a large pea, of a reddish orange-colour, and containing an orange-coloured pulp; seeds four, sometimes, but seldom, three or five, ovate, smooth, shining, cartilaginous, brownish yellow. The berries are eaten by small birds, and the seeds are strung for bracelets by the Caribs, whence the French name *bois bracelets*, and the trivial name *armillaris*.—The Spaniards call it *barbasco* or *verbasum*. Native of Jamaica on calcareous rocks, on the coast; flowering in February and March.—*Martyn's Dictionary.* Sloane, from the resemblance of the berries to currants, called this plant *currant-tree*.

JAMAICA



## JAMAICA BARK.

## CINCHONA:

CL. 5, OR. 1:—*Pentandria monogynia*. NAT. OR.—*Contortæ*.

This was so named from the Countess del Cinchon, lady of a Spanish Viceroy, whose care is said first to have brought the Peruvian bark into reputation.

GEN. CHAR.—Calyx a one-leafed perianth, superior, short, five-toothed, permanent; corolla monopetalous, funnel-shaped, five-lobed; tube long, obscurely angular; segments lanceolate or linear, equalling the tube; the stamens are five filaments, in the middle of the tube, with linear erect anthers; the pistil has an inferior germ, turbinate, obscurely angular; style the length of the stamens; stigma thick, bifid, or entire; the pericarp is a capsule crowned with the calyx, bi-partite, opening into two parts inwardly, the partition parallel; seeds many, oblong, compressed, surrounded by a membranaceous wing. Three species are natives of Jamaica.

## 1. CARIBBEA: CARIBBEAN.

Peduncles axillary, one-flowered.

This tree rises from fifteen to twenty feet, having an ash-coloured bark, the trunk not thick in proportion to the height, but hard, tough, and of a yellowish white colour in the inside. The leaves are of a rusty green, and the young buds of a blueish-green hue; the flowers are of a dusky-yellow colour, and the pods black; when ripe they split in two, and are, with their flat brown seeds, in every respect similar to those of *cinchona officinalis*. The bark in general is smooth and gray on the outside, though in some rough and scabrous; when well-dried the inside is of a dark brown colour. Its flavour at first is sweet, with a mixture of the taste of horse-raddish, and of the aromatics of the East, but, when swallowed, of that very bitterness and astringency which characterises the Peruvian bark. It grows near the sea-shore, and is called in Jamaica *sea-side beech*. The bark of the large trunks is rough, and the cuticle thick and inert; the inner bark is thinner than that of the young trees, but more fibrous. I have made use of this bark in all cases where the Peruvian bark was indicated, and with the greatest success. Half an ounce, infused in a bottle of wine or spirits, affords an elegant and grateful bitter. In the beginning of typhus, I remove the sick into airy chambers, wash their hands and face often in cold water, and direct them to chew a little of this bark, with very happy effects.—*Wright*.

## 2. BRACHYCARPA.

Panicle terminating; capsules ob-ovate, ribbed; leaves elliptic-obtuse.

The following account of this new species of Jesuit's bark, is by Mr. John Lindsay, formerly a surgeon in Westmorland, and much distinguished by his discoveries in botany, especially for the experiments he made with the seeds of cryptogamous plants:

"This tree was discovered in November, 1784, on the north-east side of the hill that overlooks the works of Mountain Spring estate, in Westmorland, and afterwards on some of the mountains, near the Moreland Estates, in the same parish.

"I have only met with it in three places, in the inland, woody, and mountainous parts of Westmorland and Hanover parishes. It grew on rocky ground, with a brick mould, and affecting a northern aspect. The tallest I ever saw was about thirty feet high.

high, and seven or eight inches in diameter. The branches are few and spreading.—The leaves stand in pairs, and are smooth and shining; very like those of the *Portulaca grandiflora*. The flowers grow in pretty large clusters, on the extremities of the branches, and have nearly the beauty and appearance of the common honeysuckle, but are rather larger. The seed-pod is larger than any other of this genus. It is oval, adorned with the calyx, of a firm consistence, somewhat striated, and black coloured; when ripe, it splits in two, and discharges a number of small, flat, brown, seeds, with a membrane nearly round the edges. The trunk and branches are of a brownish-grey colour, with a few superficial furrows and cross cracks, like the Peruvian bark. The bark of the trunk is pretty thick, and, when wounded, exudes a small quantity of a milky juice. The bark, when dried, is of a purplish-brown colour on the inside. It is fibrous, and more difficult to pulverise than the Jesuit's bark in use. The powder is of a purplish-grey colour, and tastes sweet, then bitter and astringent.

“No opportunity ought to be omitted that can in any way make us more acquainted with this valuable genus *cinchona*, the salutary effects of which give a security and comfort to the lives of those in warm and unhealthy climates, beyond any other medicine we know of. This species might be used as a substitute to the Peruvian bark; but it is to be regretted that the tree is scarce and small, and that enough of it cannot be had, at least in these parts.\*

“I do not pretend to hold up this new bark as superior, or even equal, to the Peruvian. I have given it in the slighter cases of intermitting and remitting fevers, with good effect; and, in a few instances, it produced a cure, where the patients had taken the common and red bark to no purpose. To people afflicted with intermittents, I gave the powder from twelve grains to thirty every hour, or every two hours, in the absence of fever. By this means a stop was put to the fever, and the patients recovered. I have also administered this new bark in dyspepsia, both in powder and infusion. It sat easy on the stomach, promoted appetite, and was easy to take. I had shewn this species of *cinchona* to my good friend Dr. Wright, before he left the island, and gave him a little of the bark. He gave it in powder to a patient, but found it emetic, which could only happen from some peculiarity in the constitution. In his letter to me, he intimates, that probably the same thing would happen with any other of this genus, if given before it was completely dried.”

The following observations, by the same gentleman, on the use of the red Peruvian bark, may not be thought misplaced here:

“The red Peruvian bark, when genuine, and given briskly, it pretty large doses, will, in particular cases, occasion a degree of anxiety, depression, giddiness, and faintness, that are alarming to the patient and his friends, and perhaps, if not timely attended to, might be of serious consequence. This only happens in certain constitutions, and in weakly habits, or those rendered so by disease. This effect of the red bark, so far as I know, has not been taken notice of by any writer, and when it occurs is either not attended to, or imputed to some other cause. The following extract of a letter from James Graham, Esq. a worthy and respectable gentleman of this island, places this circumstance in a strong light:

“Mr. Graham had been afflicted with a fever and ague for several months, and, having

\* This loss may be compensated by the abundance of the preceding species, described by Dr. Wright in the sixty-seventh volume of the Philosophical Transactions, and which has been found to answer all the purposes of Jesuit's bark. All the Jamaica species, being of an emetic nature, should be given in small doses at first.

ing consulted an eminent physician here, had the red bark prescribed him, which he was to take in doses of thirty grains each. "On taking the first," says he, "I instantly perceived an unusual pungency on my tongue. After the fifth I felt an anxiety about my breast, with faintishness; and had hardly done swallowing the sixth, when I was seized with a giddiness, an universal tremor, and a profuse cold sweat. A little wine, which was given me in this situation, relieved me considerably. In about an hour, all the alarming symptoms disappeared, but I remained weak and languid.—From that day, however, the fever left me, and did not return till several months after, when it was brought on by a cold, and was removed by the bark administered in the same manner, and attended nearly by the same symptoms as before."

3. TRIFLORA. THREE-FLOWERED.

Peduncles three-flowered.

This species was discovered by Mr. Roberts, a clergyman, in Jamaica. The leaves are very like those of the first species, and the pods somewhat larger. At the axillæ come out three scarlet flowers. The bark is of the colour of Peruvian bark. It grows in many parts of Jamaica.

JAMAICA BILBERRY OR WHORTLE-BERRY. VACCINIUM.

CL. 3, OR. 1.—*Octandria monogynia*. NAT. OR.—*Bicornes*.

GEN. CHAR.—Calyx a small perianth, superior, permanent; corolla one-petaled, bell-shaped, four-cleft, segments revolute; stamens eight simple filaments, inserted into the receptacle, with two-horned anthers; the pistil has an inferior germ, a simple style, and obtuse stigma; the pericarp is a globular umbilical berry, four-celled; seeds few and small. One species is a native of Jamaica.

MERIDIONALIS.

Leaves ovate-oblong, acute, serrate, perennial, flat, lucid; racemes terminating, erect; corollas prismatical.

The corolla of this plant is seldom five-cleft. It grows in the Blue Mountains, and about the morasses in Westmorland. Mr. A. Robinson mentions a plant he met with at Coldspring, fifteen feet high, and the stem as thick as a man's thigh. The berries grew in clusters about two inches long, black as a sloe, and covered with farina; they were the bigness of an English pea, crowned with the four-leaved cup, four-celled, and containing many seeds. They had a very pleasant taste, being a mixture of sour and sweet. The leaves grew alternate, ovate, slightly crenated, hardly an inch long, of a firm hard consistence, and sub-astringent taste. It was in berry in July.

JAMAICA OR INDIAN GRAPE.

VITIS.

CL. 5, OR. 1.—*Pentandria monogynia*.

NAT. OR.—*Hederaceæ*.

GEN. CHAR.—See Grape-Vine, p. 334.

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INDICA.

## INDICA. INDIAN.

*Vitis, fructu minore, rubro, acerbo, folio subrotundo minus laciniato, subtus alba lanugine tecto.* Sloane, v. 2, p. 104, t. 210, f. 4.—  
*Silvestris, sarmentis late repentibus, uvis minoribus nigris.*—  
 Browne, p. 178.

Leaves cordate, toothed, villose beneath; tendrils racemiferous.

This plant has a trunk frequently as thick as a man's leg, woody, and sending out branches, with branching tendrils, by which it fastens itself to trees. The leaves and flowers very nearly resemble those of the common grape-vine; the former have inch-long footstalks, they are soft, green on the upper side, and white and downy on the under. The fruit, which ripens in September, is in bunches of small grapes, of a purplish colour, which have a rough acerb taste, and, it is thought, would make an excellent wine under proper management. It is sometimes made into tarts. This plant grows wild in most parts of Jamaica, and, when luxuriant, which it is in the higher woodlands, is so full of juice, that a junk of three feet in length will yield near a pint of clear tasteless water; which often affords great refreshment when no other water is near. From this quality in the stem it is well known by the name of *water-withe*; and it is worthy of remark, that the common grape-vine, if wounded in the spring, also emits a clear, limpid, watery, juice.

See GRAPE-VINE.

## JAMAICA NETTLE-TREE.

## CELTIS.

CL. 23, OR. 1.—*Polygamia monoecia.* NAT. OR.—*Scabridæ.*

GEN. CHAR.—Hermaphrodite calyx five-parted; no corolla; stamina five filaments, with oblong anthers; pistil an ovate germ, with two styles, and simple stigmas; the pericarp a globular one-celled drupe, containing a roundish nut. The male flowers have a six-parted perianth, and six stamens; all the rest as in the hermaphrodites. Two species are natives of Jamaica.

## 1. MICRANTHA.

*Arborescens foliis oblongo ovatis hirsutis et leniter serratis, floribus minimis, racemis alaribus.* Browne, p. 173, t. 12, f. 2.

This shrubby tree, which is the *rhamnus micranthus* of Linnæus, seldom rises above ten or twelve feet, and throws out a great number of loose branches. It is frequent in Clarendon and about the Ferry, and is known by the name of *bastard fustic*. It sometimes grows to the height of thirty feet. The berries are of a deep purple semi-pellucid colour, of a sweet and not disagreeable taste, nearly the size of the locus-berry.

## 2. AMERICANA. AMERICAN.

Leaves oblong-ovate, obtuse, nerved, smooth above, golden beneath.

This rises near twenty feet high, covered with a grey bark, and dividing at top into many branches; leaves nearly four inches long, and two and a half broad, rounded at

their extremity, of a thick texture, very smooth on their upper surface, and on their under of a lucid gold colour. The fruit is round and red. It was found in Jamaica by Dr. Houston.

See NETTLES and NETTLE-TREE.

JAMAICA PEPPER—See PIMENTA.

JAMAICA PLUM—See SPANISH PLUM.

## JAMAICA SALOP.

## LIMODORUM.

CL. 20, OR. 1.—*Gynandria diandria*. NAT. OR.—*Orchideæ*.

GEN. CHAR.—Calyx vague spathes, spadix simple, no perianth; the corolla has five petals, ovate-oblong, about equal, spreading, the superior ones converging; nectary one-leaved, concave, footstalked, within the lowest petal, the length of the petals; the stamens are two, bearing a filament with an oblong ascending body, the length of the corolla; with two anthers, ovate, looking forwards; the pistil has a columnar germ, the length of the corolla, inferior, with a funnel-form stigma; the pericarp a columnar three-valved capsule, one-celled, gaping at the corners; seeds numerous, like saw-dust. Swartz observes that this genus is scarcely different from *serapias*, except in the inflorescence or scape. Four species have been found in Jamaica.

1. ALTUM. TALL.

*Folius liris longissimis, scapo florifero partiali, sub-squamoso.*—  
Browne, p. 325.

Flowers beardless; spikes sub-panicled.

Bulb tubercled, roundish, of a fleshy and fibrous substance, covered with a coriaceous, shining skin, and having some tomentose white fibres underneath. Leaves from the bulb, vernal, two feet long, broad-lanceolate, longitudinally folded at the nerves, even, very like those of a young plant of the cocoa-nut; scape simple, upright, sometimes divided at top, two feet high, even, round. It has little sheaths on it which are remote, præmorse, embracing, netted, pale. Flowers terminating, scattered, alternate, large, purple, sometimes varying to white; the three outer petals are upright, spreading; the two inner bent in, forming a helmet with the middle upper one; all equal, converging a little, the inner ones paler; nectary ventricose, cordate, embracing the column with its base; lip recurved, two lobed, whitish, with longitudinal blood-red grooves, and others sulphur-coloured; the middle appendicled, with an ovate-emarginate blood-red little jug; column elongated, gibbous, boat-shaped, dilated at top, cordate, having the two anthers on very short pedicels in a case, stigma tubular in front; germ oblong, attenuated; capsule large, oblong, pedicelled, attenuated at the base.—Sw.

The leaves of this species (which is found only in the cooler parts of the mountains,) generally run from fifteen inches to two feet in length. The flower-stalks grow close to these, but separate, and rise commonly to the height of two or three feet. The root is fleshy, somewhat transparent, its taste is bitterish, and attended with a clam-

miness that leaves a light prickly warmth behind it; but this wears off soon, leaving the palate free from every sensation but that of the bitter. As the root dries it acquires a great deal both of the colour and taste of rhubarb; but it should be sliced, and kept a long time in the open air or sun, to be properly cured. It may be used with great propriety as a stomachic, and is generally observed to thicken the saliva when chewed.  
—Browne.

## 2. TUBEROSUM. TUBEROUS.

Flowers sub-spiked, bearded.

Root tuberous; stem a foot and a half high; the number of flowers not exceeding five, dark purple; in a more luxuriant situation probably all parts are larger. This was long confounded with the first species.

## 3. UTRICULATUM. BOTTLED.

Root tuberous; root leaves twin-sheathed, radical sheath inflated, scape-sheathed; flowers sessile.—Sw.

## 4. GENTIANOIDES. GENTIAN-LIKE.

Root tuberous; leafless, stem sheathed; flowers peduncled.

JAMAICA WALNUT—See WALNUT.

JAMBOLAN—See ROSE APPLE.

## JASMINE.

## JASMINUM.

CL. 2, OR. 1.—*Diandria monogynia*. NAT. OR.—*Sepiaria*.

GEN. CHAR.—Calyx a one-leaved five-toothed perianth; corolla one-petaled, salver-shaped, border five-parted; the filaments have small anthers, within the tube; the pistil has a roundish germ, a filiform style, and bifid stigma; the pericarp is an oval smooth berry, two-celled; seeds two, large, ovate, arillated, convex on one side, flat on the other.

## 1. OFFICINALE. OFFICINAL.

Leaves opposite, pinnate; leaflets acuminate; buds almost upright.

This shrubby, climbing, and fragrant plant, has been very generally cultivated in Jamaica, for the purpose of framing arbours. Several other species have also been introduced, which thrive remarkably well. Browne notices a wild species, which he calls the small, shrubby, *dwarf jasmine*, with small ovate, acuminate, rigid, opposite leaves, which is a native of Jamaica, and, he says, grows plentifully in the parish of Portland. It shoots in small tufts, and seldom rises above a foot or two from the ground; its leaves are very smooth and shining.

## 2. SAMBAC.

Leaves opposite, simple, elliptic, ovate and sub-cordate, membranaceous, opaque; branchlets and petioles pubescent; calycine segments awl-shaped.

This plant is generally known by the name of *Arabian jasmine*, and is the *nyctanthes*.

*lanthes* of Browne. It has also been pretty generally cultivated in Jamaica, forming pleasant sweet-scented arbours. The flowers are of a fine white, when fully blown they drop from their cups upon being shaken; they continue through most of the year.

JASMINE, BASTARD—See POISON BERRIES.

JASMINE, CAPE—See INDIGO BERRY.

JASMINE, FRENCH—See SWALLOW-WORT.

## JASMINE-TREE.

## PLUMERIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Contortæ.*

This was so named in honour of the celebrated Charles Plumier, of Marseilles, who travelled in South America.

GEN. CHAR.—Calyx a small, bluntly five-parted, perianth; corolla one petaled, funnel form; tube long, border five-parted, from erect spreading; segments ovate-oblong, oblique; the stamens are five awl-shaped filaments, from the middle of the tube, (very short, scarcely rising above the calyx); anthers converging, large, triangular; the pistil has an oblong bifid germ; scarcely any style; stigma double-acuminate; the pericarp is two long acuminate follicles, ventricose, bent downwards, nodding, one-celled, one-valved; seeds numerous, oblong, inserted into a larger ovate membrane at the base, imbricate. Two species are natives of Jamaica, both growing wild in the woods.

## 1. RUBRA. RED.

*Nerium arboreum, folio masimo obtusiore, flore incarnato.* Sloane, v. 2, p. 61, t. 185 and 86, f. 1. *Arborescens ramulis crassis, foliis oblongo ovatis, petiolis biglandulis, floribus geminatis per spicas terminales.* Browne, p. 184.

Leaves ovate-oblong; petioles biglandular.

This tree rises from fifteen to twenty feet in height, having a succulent trunk and branches, full of a milky juice, as are all parts of the tree. The bark of the branches is of a dark dirty green colour, with sundry protuberances or marks, where the leaves or branches have fallen off. The bark of the main stem, which is a foot in diameter in old trees, is rough, woody, and, on being wounded, yields but a very small quantity of sap. The leaves come out in clusters at the ends of the branches, having a large mid-rib and many veins; they are six or eight inches long, and four or five broad, evenly spread out, and stand on round petioles about two inches long, which, as well as the leaf, are stiff and erect. The flowers come out from among the leaves, on strong round peduncles, five or six inches long, which branch into many pedicels, containing the flowers, something in the form of a trident; the main peduncle again shoots up from the middle some inches, and again branches into pedicels of flowers.—They are of a pale red colour, and shaped like those of *oleander*, or rose-bay, and have an agreeable odour. Every part is very succulent and brittle, and broken branches readily take root and grow. From the least wound in the branches, leaves, or flower-stalks, its milky juice flows very abundantly, and is said to be of a purgative nature.

## 2. ALBA.

## 2. ALBA. WHITE.

*Nerium arboreum altissimum, folio angusto, flore albo.* Sloane, v. 2, p. 62. *Arborescens racemis terminalibus pedunculis longis nudis incidentibus.* Browne, p. 181.

This can hardly be called a species, for in no respect does it differ from the other but in the colour of the corolla. The flowers grow in a similar manner, and have an agreeable smell; the leaves are exactly the same, and produced in the same manner; and there is no possibility of distinguishing the two trees but by the colour of the flower.

## JERUSALEM THORN.

## PARKINSONIA.

CL. 10, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Lomentaceæ.*

This was so named in memory of John Parkinson, apothecary of London, author of some botanical works.

GEN. CHAR.—Calyx a one-leaved perianth, at the base bell-shaped, flattish, permanent; border five-parted; segments lanceolate-ovate, acute, coloured, reflex, almost equal, deciduous; the corolla has five petals with claws, almost equal, spreading very much, ovate; the lowest kidney-form, claw upright, very long; the stamens are ten filaments, awl-shaped, villose below, declined; anthers oblong, incumbent, the pistil has a round, long, declined, germ; style filiform, rising the length of the stamens; stigma blunt; the pericarp is a very long round legume, swelling over the seeds, like a necklace, acuminate; seeds several, one to each joint of the legume, oblong, sub-cylindric, blunt. There is only one species.

## ACULEATA. PRICKLY.

*Aculeata, foliolis minutissimis, pinnatis, penna longiori compressa* — Browne, p. 222.

This is a small tree, with a trunk ten or twelve feet high, unarmed, even; branches long, sub-divided, flexuose, prickly, strict. Prickles two opposite, at the sides of the petioles, one between them three times as long as the others, awl-shaped, upright. Leaves alternate, in fours from the same bud, pinnate, very long, linear. General petioles linear, thicker at the base, flat, somewhat convex, spreading, very smooth; leaflets extremely small, on very short petioles, ovate, smooth. Racemes terminating and axillary, solitary, shorter than the leaves, erect, (eight or ten) many-flowered; flowers alternate, scattered, yellow, on long peduncles; the largest petal as it were pedicelled, roundish, with blood-red streaks at the base; all the petals waved and curled; filaments shorter by half than the petals, equal; anthers purple; style short, awl-shaped, a little ascending; legume compressed a little; seeds brown, smooth.—*Sw.* The wood is white, leaves shining, racemes of flowers loose, simple, beautiful, and smelling very sweet. It is worth notice, that the leaflets or lobes drop from the middle ribs, leaving them bare; and that the flower spikes, depending from the tree, cause the standard-like petal to be lowest, which would be reversed were the spikes upright. The perianth has its base permanent, forming a kind of nectarium, but the divisions



divisions of the perianth are reflected and deciduous. Browne says, "this shrub was first introduced into Jamaica from the Main, but now grows wild in many parts. It seldom rises above eight feet in height."

JEW'S MALLOW—See BROOM-WEED.

INDIAN ARROW-ROOT—See ARROW-ROOT.

## INDIAN CREEPER.

## IPOMOEÆ.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Campanacæ*.

GEN. CHAR.—Calyx a five-toothed oblong perianth, very small, permanent; corolla one-petaled, funnel-form; tube sub-cylindric, very long; border five-cleft, spreading; divisions oblong, flat; the stamens are five; filaments awl-shaped, almost the length of the corolla, with roundish anthers; the pistil has a roundish germ, a filiform style, the length of the corolla, stigma headed, globose; the pericarp a roundish capsule, three-celled, containing sub-ovate seeds. This genus is nearly allied to *convolvulus*, but differs from it in the lengthened tube of the corolla and the headed stigma. Eight species grow in Jamaica, as follow:

## 1. QUAMOCLIT.

*Folius capillaceis pinnatis, floribus rubellis solitariis*. Browne, p. 155.

Leaves pinnatifid, linear; flowers sub-solitary.

This is an annual plant, rising with two oblong, pretty broad, forked, two-nerved, seed-leaves, which remain a considerable time before they fall off; stems slender, twining and rising by support seven or eight feet, sending out several side-branches, which twine about each other and the principal stem, or any neighbouring body. The leaves are composed of several pairs of very fine narrow lobes, not thicker than sewing thread, having a fine mid-rib, the lowest lobe generally double, or having a leafy sput annexed to it; the lobes are about an inch long, of a deep green; either opposite or alternate. The flowers come out singly (sometimes doubly) from the side of the stalk, on slender peduncles, about an inch long; the tube of the corolla is about the same length, narrow at bottom, but gradually widening towards the top, where it spreads open flat, with five angles; it is of a most beautiful scarlet colour, and makes a fine appearance. It is known by the name of *Barbadoes sweet-william*. Browne calls it the *American jessamine*, which is cultivated in most gardens of Jamaica on account of its beautiful flowers, and delicate, thick, minutely-dissected, foliage. It is also called *Indian pink*, or *red bell-flower of America*. The root is said to be a strong purge, in decoction. This is a variety with beautiful white flowers.

## 2. COCCINEA. SCARLET.

*Folius cordatis productionibus, tubo floris arcuato, limbo crenato*.—

Browne, p. 155.

Leaves cordate-acuminate; angular at the base; peduncles many-flowered.

Stem herbaceous, twining, quadrangular, smooth, flexuose; leaves petioled, pentagonal, smooth on both sides. Peduncles very long, axillary, upright, round, two-parted.

parted, bifid, on one-flowered pedicels; flowers long, scarlet, larger than those of the first sort; calyx five-cleft, with lanceolate segments; border of the corolla plaited; stamens longer than the corolla, anthers whitish; germ superior, stigma marked with four lines; capsule four-celled, four-seeded; seeds solitary, roundish-angular, black.

—*Sr.* This is also an annual plant, growing to the same height. The corolla is not so deep coloured as that of the *quamoclit*; and there is a variety with orange-coloured flowers. Browne observes that it is remarkable for the curved or arched figure of the tube of the corolla.

### 3. TUBEROSA. TUBEROUS.

*Convolvulus major heptaphyllos, flore sulphureo, odorato, speciosissimo.* Sloane, v. 1, p. 152, t. 96, f. 2. *Heptadactyla major scandens, flore majari campanulato, calice membranaceo, seminibus majoribus villosis.* Browne, p. 155.

Leaves palmate; lobes in seven's, lanceolate, acute, quite entire; peduncles three-flowered.

This plant is called the *seven-year*, or *Spanish arbour vine*, and is thought to have been introduced from the continent. It is naturally a climber, and spreads to such an extent as to be carried over an arbour of three hundred feet in length from one root. The root is tuberous, as large as the human head, and sends forth a brown cornered stem, which mounts the highest trees; the branches are numerous, as are the leaves, which are as large as a hand, smooth, and standing on long petioles; they have seven lobes, from whence it may probably have been called *seven-earred*, instead of *seven-geared*, vine. The lobes at the base are shortest and narrowest, growing larger to the last. The peduncles are about three inches long, round, and green, many-flowered; the flowers are of a fine yellow colour, and agreeable smell. The capsule is about as big as a walnut, membranaceous, shining-brown, with the capsular leaves sticking to its base; it is two-celled, and in each cell two black or dark brown seeds, one sometimes abortive; they are villose, triangular, with a roundish side. This plant is wonderfully beautiful and fragrant when in flower, and very fit for arbours, as its thick foliage completely excludes the rays of the sun. Every part of it is purgative, and abounds with milk. Barham supposes scammony might be made from it.

### 4. BONA NOX. GOOD NIGHT.

*Convolvulus maximus, caule spinulis obtusis obsito, flore albo, foliis hederaceo, anguloso.* Sloane, v. 1, p. 151, t. 96, f. 1. *Silvestris foliis et floribus amplissimis, tubis florum subteretibus.* Browne, p. 155.

Leaves cordate, acute, quite entire; stem prickly; flowers in threes; corollas undivided.

This is an annual plant, growing to a very great length, covering sometimes many trees, or the banks of rivers for many paces, having a round and reddish stalk, armed with blunt, herbaceous, short, variously shaped, prickles, winding itself about any thing it comes near, or creeping along the surface of the ground. At unequal distances come out, on petioles six inches long, smooth petioled leaves, four inches long, and as broad from ear to ear at the base, there being a sinus or hollow from the ears to the point. The flowers are axillary, many, on peduncles an inch long; the tube of the corolla

corolla is seldom less than from three to four inches in length; the border is white, five inches in diameter, a little sinuated, and has five green streaks on the outside.—*Sloane*. *Browne* observes that this plant grows in great abundance about the Ferry, Spanish Town, and Sixteen Mile Walk, running among bushes, and adorned with large white flowers. He also remarks, that the leaves, like those, indeed, of all the species of *convolvulus* and *ipomoea*, are very variable, being sometimes of the form of a heart, and at other times lobed; sometimes also the stem only is prickly, at others both the stem and petioles. The fruit is a juiceless berry, globular, one-celled; rind leathery, separating from the pulp when ripe; within covered by a fine white membrane, marked with six longitudinal streaks; the pulp is fungous and snowy white, adhering to the seeds, which are three or four, ovate, on one side convex with a groove, on the other angular, perforated near the base with a large umbilical aperture; they are smooth, of a pale testaceous colour.—*Sloane & Gartner*.

## 5. VIOLACEA. VIOLET.

*Convolvulus major, folio subrotundo, flore amplo, purpureo.* *Sloane*, v. 1, p. 154, t. 98, f. 1.

Leaves cordate, quite entire; flowers crowded; corollas undivided.

The round green sarments or stalks of this plant mount about any tree, shrub, or hedge, to a great height, clothing them green with their many branches and leaves; these are two inches and a half long, and two inches broad at the round base, from one ear to the other, smooth, yellowish-green, on petioles an inch and a quarter in length.

The flowers are of a pale purple colour, very large, bell-shaped; capsule brown, having above five valves, four round protuberances, and in each of them a large triangular, smooth, solid, whitish-brown, seed. It grows every where on hedges and ditches in moist lands. *Hernandez* says the decoction is purgative, made of the green herb, and taken in the morning.—*Sloane*.

## 6. TRILOBA. THREE-LOBED.

*Convolvulus folio hederaceo, anguloso, flore dilute purpureo.* *Sloane*, v. 1, p. 155.

Leaves three-lobed, cordate; peduncles three-flowered.

This sends forth several stems from the same root, which is oblong, deep, and large; the stalks are round, reddish, three or four feet long, trailing on the surface of the ground. The leaves are on two inches long petioles; an inch and a half or two inches long from the centre of the petiole to the opposite point, and as much from end to end of the sections at the base; being three-lobed, the lobe opposite the footstalk longer and sharper than the others. The flower has a half-inch long footstalk, and of a purple colour. It grows in great quantities in the Red Hills.

## 7. PES TIGRIDIS. TIGER'S-FOOT.

*Convolvulus pentaphyllos, flore pallide flavescente, caule hirsuto, pungente.* *Sloane*, v. 1, p. 152. *Hirsuta repens minor pentaphylla, foliis oblongis leviter crenatis.* *Browne*, p. 155.

Leaves palmate; flowers aggregate.

The root is oblong and tuberous, of an ash-colour, from which rises a purple stem, branched out into others, very tough, and purple, taking hold and climbing upon any plant

plant it comes near. The stems are covered with long hairy prickles, which are troublesome, like those of cowitch. At about two inches distance come out the flowers and leaves; the latter on three-fourths of an inch long petioles, and are divided into five sections from the centre: the section opposite the petiole is about an inch long; the rest are shorter, in proportion to their being near the base; they are all smooth, and of a pale green colour. The flowers are axillary, on two-inch long footstalks; they are small, of a pale yellow colour, having a green calyx. The capsules are round, four-celled, having one brown hairy seed in each, triangular, round on one side, and flat on the others. It grows in savannas and river sides plentifully.—*Sloane*.

8. PARVIFLORA. SMALL-FLOWERED.

*Convolvulus pentaphyllos minor, flore purpureo.* *Sloane*, v. 1, p. 153, t. 97, f. 1.

Leaves cordate, five-lobed, palmate; umbels axillary, peduncled; calyxes and capsules hairy.

This has a small stringy root, which sends up a round purple stalk, winding about any thing near it, and rising two feet high. The leaves are purplish-green, five-lobed, almost to the petioles, looking like papaw leaves. The flowers are axillary, and of a pleasant purple colour; the capsules are round, brown, membranaceous.—*Sloane*.

INDIAN CRESS.

TROPEOLUM.

CL. 8, OR. 1.—*Octandria monogynia.* NAT. OR.—*Tripelata*.

GEN. CHAR.—Calyx a one-leafed, five-cleft, perianth, from upright spreading, acutely coloured, deciduous; the two lower segments narrower; horned at the back with an awl-shaped, straight, longer nectary; the corolla has five petals, roundish, inserted into the divisions of the calyx; two upper sessile, the others lower, with oblong-ciliate claws; stamens eight awl-shaped filaments, short, declining, unequal; anthers erect, oblong, rising; the pistil has a roundish germ, three-lobed, striated; a simple erect style, the length of the stamens, and a trifid acute stigma; the pericarp is three nuts or berries, somewhat solid, on one side convex, grooved, and striated, on the other angular; seeds three, gibbous on one side, angular on the other, roundish, grooved, and striated. Two species have been introduced.

1. MAJUS. LARGE.

*Folius sub-quinquelobis peltatis, petalis obtusis.* *Browne*, p. 207.

Leaves peltate, repand; petals obtuse.

The root is small, oblong, and divaricated; the stem slender and weak, trailing on the ground, unless supported. The leaves stand singly at the joints, on long pedicels, which are reddish, slender, and tortile, and inserted into the middle of the leaf, in a peltate manner. The form of the leaf inclines to round, but slightly sinuated into five lobes. The flower pedicels are axillary, long, slender, contorted; the flower is large, of a very beautiful yellow colour, intermixed with red streaks. There is a variety of both species, with yellow flowers. The fruit consists of three berries or nuts, becoming juiceless when ripe, fungous, deeply grooved, and wrinkled, gibbous on one side, angular

angular on the other, narrowing upwards, of a dirty white colour. Seeds solitary, of an oblong spheroidal form, but wrinkled by age, shaped as the berry is externally, rufescent, terminated at top by the umbilical chord. The flowers of this, as well as the other species, are frequently eaten in sallads, having a warm spicy, agreeable taste like garden cress. By distillation with water they impregnate the fluid with their smell and flavour; and are considered as an agreeable warm antiscorbutic. Being very beautiful, the flowers and leaves are often used for the purpose of garnishing dishes. The plant itself is a great ornament, when trained to run on walls or fences, which it will do to a considerable distance. The seeds are said to make a good pickle, resembling capers. The flowers have been observed to emit electric sparks towards evening. The French call it *le grande cupucine*.

2. MINUS. SMALL.

Leaves peltate, sub-repand, mucronate; petals acute.

This plant is smaller than the other, which distinguishes it, as well as the points at the top of the petals, and at the ends of the nerves in the leaves. It is also a trailing and ornamental plant; the leaves almost circular, smooth, greyish; flowers axillary, on long peduncles, the same colour and half the size of the former.

INDIAN CURRANT-BUSH.

MELASTOMA

CL. 10, OR. 1.—*Decandria monogynia*.

NAT. OR.—*Calycanthemæ*.

This was so named from two Greek words signifying black and a mouth, as the pulp of the fruit blackens the mouth on eating it.

GEN. CHAR.—Calyx a one-leaved perianth, bell-shaped, ventricose at the base, four or five-cleft, permanent; the corolla has four or five petals, roundish, inserted into the throat of the calyx; stamens eight or ten, inserted into the calyx, short; anthers long, somewhat curved, upright, one-celled, gaping at the top, with an oblique hole; scalelets two, very small, diverging, annexed to each filament below the anther, the rudiment of another cell; the pistil has a roundish germ, in the belly of the calyx; style filiform, straight; stigma blunt, or headed; the pericarp a berry, two, three, four, or five-celled, wrapped up in the calyx, roundish, crowned with a cylindric rim; seeds very many, nestling. No less than thirty-two species of this numerous family of plants have been discovered in Jamaica, and it is supposed many more may be found.

The following are ten-stamened, with three-nerved leaves:

1. HOLOSERICEA. VELVET.

*Grossularia fructu arbor maxima non spinosa malabathri folio integro minore subtus jervugineo.* Sloane, v. 2, p. 85, t. 196, f. 2. *Arborescens, foliis ovatis subtus cinereis, racemis terminatricibus, floribus majoribus.* Browne, p. 219.

Leaves entire, three-nerved, sessile, ovate-acute, villose-silky; racemes brachiate; branches two-parted; stem acutely quadrangular.

Stem shrubby, rough-haired, with membranaceous corners. Leaves cordate at the base, acuminate, whitish underneath, nine-nerved, with three thicker; racemes opposite,

posite, sub-divided, with a sessile flower in the forkings, the last pedicels three-flowered. Corollas rather large; calyx oblong, five-cleft; segments lanceolate-acute; petals five, ob-ovate, roundish, blunt, spreading, longer than the segments of the calyx, violet purple; filaments ten, the length of the corolla, filiform, purple; anthers very long, sickle-shaped; germ oblong; style long, curved; stigma thickish; fruit a berry.—Sw.

2. SCANDENS. CLIMBING.

*Minima scandens, sarmento tenui, foliis quinquenerviis ovatis ciliatis oppositis.* Browne, p. 220.

Leaves three-nerved, toothletted, ovate, acute, smooth; raceme terminating; spikes mostly pointing one way; stem climbing.—Sw.

3. ACINODENDRON.

*Foliis amplissimis subtus ferrugineis, racemis terminatricibus.* Browne, p. 219.

Leaves toothletted, with three nerves or thereabouts, ovate-acute.

Browne calls this the large leafed foxy *melastoma*.

4. SESSILIFOLIA. LEAVES SESSILE.

*Foliis amplioribus, per petiolum recurrentibus et contractis; fasciculis florum sparsis.* Browne, p. 219, t. 24, f. 1, 2.

Leaves quite entire, triple-nerved, spatulate, sessile, tomentose underneath.

Browne calls this the large leafed *melastoma*, with the flowers disposed in scattered tufts.

5. QUADRANGULARIS. FOUR-ANGLED.

Leaves three-nerved, entire, ovate-lanceolate, smooth; nerves coloured; branches quadrangular; raceme straight, terminating.—Sw.

6. ORNATA. ADORNED.

Leaves three-nerved, entire, rigid, hispid above with close pairs, hoary white below; umbel four-parted, terminated by small flowers; capsule hispid.—Sw.

7. TRINERVIA. THREE-NERVED.

Leaves three-nerved, without any marginal nerve, oblong, attenuated at the base and tip, entire, smooth on both sides, thinner; racemes almost terminating; flowers sessile.—Sw.

8. RAMIFLORA. FLOWER-BRANCHED.

Leaves three-nerved, entire, ovate-lanceolate, somewhat rugged; branches flower-bearing; flowers peduncled, somewhat clustered.—Sw.

9. PRASINA. GREEN.

Leaves triple-nerved, quite entire, broad-lanceolate, smooth; panicle terminating, spreading very much.—Sw.

Trunk four inches in diameter, and five or six feet high, with a whitish, solid, compact, wood; branches and twigs from the top, long, four-cornered; leaves pale green, green.

green, slightly toothed at the edge, ending in a point, five-nerved, nerves red.—  
flowers very small; petals five, white; ten filaments; berry blue, small, not very  
succulent, four or five-celled.—*Aublet*.

10. PROCERA. - TALL.

Stem arboreous; leaves three-nerved, somewhat tooth-letted, smooth; racemes  
terminating; spikes simple, erect; calyxes truncate.—*Sw*.

11. RIGIDA. - RIGID.

Leaves three-nerved, somewhat tooth-letted, smooth; raceme terminating;  
spikes simple, erect; calyxes truncated.—*Sw*.

12. MONTANA. - MOUNTAIN.

Leaves three-nerved, tooth-letted, oblong, acute, smoothish; raceme termin-  
ating with patulous spikes; petals retuse; calyx truncated.

13. PATENS. - SPREADING.

Leaves three-nerved, somewhat tooth-letted, cordate, hirsute; raceme terminat-  
ing, patulous; flowers distinct, twelve-stamened.—*Sw*.

*The following are ten-stamened, with five-nerved leaves:*

14. LEVIGATA. - SMOOTH.

*Fruticosa minor, foliis tenuibus ovatis, racemis terminalibus.*—  
Browne, p. 219.

Leaves quite entire, five-nerved, ovate-oblong, levigated, acuminate, even  
about the edge.

This is an upright shrub, the height of a man, with a smooth even stem; branches  
upright, from round, angular, smooth, and even. Leaves petioled, opposite, and  
decussated, lanceolate-ovate, smooth on both sides, very thin; sometimes wrinkled a  
little underneath, somewhat shining, deep green. Racemes terminating, compound,  
erect, paniced; branches opposite; decussated; branchlets also opposite; flowers  
clustered, on short pedicels, white; small; calyx superior, five-toothed, teeth blunt,  
short; petals five, inserted below the teeth, sub-sessile, roundish, entire; filaments  
ten, fixed to the calyx below the petals, longer than the corolla, knee-jointed; anthers  
erect, perforated at the top; germ roundish; style erect, longer than the stamens;  
stigma thickish, truncate, concave; berry roundish, at first white, then blue, and at  
length black, five-celled, with a very dark blue juice.—*Sw*. Browne calls this parti-  
cularly the *Indian currant-tree*.

15. TAMONEA.

*Grossularia fructu arbor maxima non spinosa malabathri folio integro  
minore subtus albido, fructu majore.* Sloane, v. 2, p. 84.

Leaves five-nerved, oblong, lanceolate, acute, entire, tomentose, hoary un-  
derneath; racemes compound, terminating; racemelets brachiate; bractes  
in pairs, under the flowers.

This is a middle sized tree, with a trunk as thick as one's thigh, having a russet-  
sploured bark, and white brittle wood. Branches long, sub-divided, square; leaves  
decussated,

decussated, yellowish-green above, slightly downy and tawny underneath, six or seven inches long, and three wide.

## 16. ALBICANS. WHITE.

Leaves five-nerved, entire, ovate, acute, smooth above, tomentose, whitish, ferruginous underneath; racemes terminating, erect; flowers clustered, sessile.—Sw.

## 17. ARGENTEA. GOLDEN.

*Grossularia fructu arbor maxima non spinosa, malabathri folio maximo inodoro, ore racemoso albo.* Sloane, v. 2, p. 84, t. 196, f. 1.

Leaves five-nerved, somewhat tooth-letted, ovate, smooth, tomentose and white underneath; panicles terminating, spreading.

This has a trunk as thick as the human thigh, with a russet-coloured, almost smooth bark, very straight, and twenty feet high. Branches and twigs opposite, square; leaves sessile, a foot and a half long, and half as broad in the middle, very green above, white beneath, and smooth, having five large ribs. The flowers are in spikes, and white.—Sloane.

## 18. HIRTA. ROUGH-HAIRED.

*Grossularia fructu non spinosa, malabathri foliis longa et ruffa lanugine hirsutis, fructu majore caeruleo.* Sloane, v. 2, p. 85, t. 197, f. 2.

*Hirsuta foliis cordatis reticulatis, scabris, floribus laxa racemosis ad alas.* Browne, p. 219.

Leaves tooth-letted, five-nerved, ovate-lanceolate; stem hispid.

Stem shrubby, a fathom in height, covered with russet-coloured long hair; branches ferruginous, hispid. Leaves ovate, or ovate-lanceolate, acuminate, tooth-letted, wrinkled, soft, very hairy; petioles longish, round, hirsute; flowers axillary and terminating, largish; peduncles very short, aggregate, (three or four) hirsute; calyx five cleft, hirsute, with blood-red hairs; segments ovate, augmented behind with linear, acute, erect, hirsute, segments; petals five, ovate, white; filaments ten, inserted into the calyx within, short; anthers oblong, bifid; germ ovate; style thick, round; stigma blunt, concave; berry clothed and crowned by the calyx, hirsute, blue, five-celled, almost as big as a nutmeg.—Sw. Piso says that the powder of the leaves is good for ulcers, and that soap is extracted from the berries.

## 19. ELATA. HIGH.

Leaves five-nerved, serrate, tooth-letted, oblong, coriaceous, ferruginous tomentose underneath; panicles terminating, spreading; flowers sessile.—Sw.

## 20. FRAGILIS. FRAGILE.

Leaves serrate, five-nerved, netted; racemes with sessile flowers, all directed one way.

This is a stiffish shrub; leaves on short petioles, ovate, five-nerved, even, serrate, ciliate, netted, very brittle; raceme terminating, brachiate; racemelets trifid, floriferous from the base; flowers directed one way, upright; anthers in the bottom of the umbilicus, ten; fruits larger, globular, like peas, smooth, with an excavated umbilicus; smaller with the umbilicus closed by five scales.



The following are eight stamened, with three-nerved leaves!

21. SCABROSA. RUGGED.

*Sub-hirsuta, foliis cordatis scabris, minutissime denticulatis et pulchre reticulatis; racemis minoribus alaribus.* Browne, p. 219, t. 24, f. 3.

Leaves triple-nerved, tooth-letted, ovate, rugged, hirsute; flowers axillary, aggregate, sessile, eight stamened.

Stem shrubby, scarcely a fathom in height, branched, hirsute; branches erect, round, hirsute; leaves large, sub decussated, ovate, attenuated, blunt, toothletted, triple-nerved, rugged, with papillas, which terminate in a hair, and are excavated underneath, hirsute-tomentose; petioles long, loose, round, thick, hirsute; flowers axillary, very much clustered, sessile, extremely minute, whitish-red; calyx four-cleft, purple, hirsute, with the hinder segments awl-shaped, minute; petals four, scarcely larger than the calyx, lanceolate, acute, spreading, white; filaments longer than the corolla, knee-jointed; anthers linear, acute, germ inferior, covered by the calyx; style columnar, thickish; stigma blunt; berry minute, roundish, surrounded and crowned by the calyx, hirsute, rufous, four-celled. Native of the colder mountains; flowering in November and December.—Sw.

22. RUBENS. REDDISH.

*Foliis ovatis nitidis minutissime denticulatis, venis et ramulis purpurascen- tibus.* Browne, p. 219.

Leaves three-nerved, tooth-letted, ovate-lanceolate, acuminate, very smooth; branches and petioles coloured; raceme terminating; flowers clustered, dioecious.—Sw.

Browne calls this the smooth leaved *melastoma*, with purple veins, which grows in the coldest mountains of Liguanea.

23. FASCICULARIS. BUNDLED.

Leaves three-nerved, entire, ovate-acute, rugged; branches flower-bearing; flowers shortly peduncled, clustered.—Sw.

24. PURPURASCENS. PURPLE.

Leaves three-nerved, entire, oblong, acute, striated, very smooth; racemes lateral, patulous; flowers distinct.—Sw.

25. HIRTELLA. ROUGH-HAIRED.

Leaves three-nerved, hispid at the edge; peduncles very short, axillary, three-flowered.—Sw.

26. HIRSUTA. SHAGGY.

Leaves three-nerved, somewhat tooth-letted, broad-lanceolate, attenuated, hirsute; peduncles axillary, three-flowered, divaricated.—Sw.

27. GLABRATA. SMOOTH.

Leaves three-nerved, somewhat tooth-letted, ovate-acute, smooth, coriaceous; peduncles terminating, solitary, one-flowered.—Sw.

28. MICRANTHA.

## 28. MICRANTHA.

Leaves three-nerved, tooth-letted, oblong, acute, smooth; racemes axillary, reclining; flowers acuminate.—Sw.

## 29. VIRGATA. TWIGGY.

Leaves triple-nerved, entire, ovate-lanceolate, acuminate, very smooth; branches flower-bearing; racemes decussated, diffused, scattered.—Sw.

## 30. TETRANDEA. FOUR-STAMENED.

Leaves three-nerved, entire, oblong, acuminate, emarginate at the base, smooth, somewhat convex; raceme erect, terminating; flowers four-stamened.—Sw.

*The following are eight-stamened, with five-nerved leaves:*

## 31. DISCOLOR. TWO-COLOURED.

*Grossularia fructu non spinosa, malabathri foliis subtus niveis fructu racemoso in umbella modum disposito.* Sloane, v. 2, p. 86, t. 198, f. 1.

This rises ten or fifteen feet high, having ash-coloured branches; leaves petioled, opposite, six inches long, and one and a half broad, green above, white below, and very pretty. Racemes branched, tomentose, terminating in pairs; flowers small, void of scent, yellow. The fruit stands in an umbel at top, flat, and somewhat like elder berries.

## 32. PHLOSA. HAIRY.

Leaves five-nerved, tooth-letted, oblong, acute, hirsute underneath; racemes lateral, hirsute.

This large genus of plants has not yet undergone sufficient examination; there are sixty-seven species known, which perhaps further discoveries may distinguish into separate genera; it is distinguished from *rhexia* principally by the fruit, which, in the former, is a berry, in the latter a capsule.—*Martyn*. The above enumerated species are found scattered in different places over the whole of Jamaica. Browne observes, that the leaves of all the species he knew were furnished with from three to five veins, that run in an arched form from the footstalk to the top; and the spaces between these are beautifully nerved or areolated.

## INDIAN FIG, OR PRICKLY PEAR.

## CACTUS.

CL. 12, OR. 1.—*Icosandria monogynia.* NAT. OR.—*Succulentæ.*

GEN. CHAR.—Calyx a one-leaved perianth, imbricate, hollow-tubular, with scaly leaflets scattered over it, superior, deciduous; the corolla has numerous petals, rather obtuse, broad, the outer ones shorter, the inner longer, converging; the stamens are numerous subulate filaments, inserted into the calyx, with oblong erect anthers; the pistil has an inferior germ, a cylindric style, the length of the stamens.

stamens, and a headed multifid stigma; the pericarp is a rather oblong berry, one-celled, umbilicate, rough-eared as the calyx is; seeds numerous, roundish, small, nestling. Eleven species are indigenous to Jamaica.

## 1. OPUNTIA.

*Opuntia major, folio oblongo, rotundo, spinis longissimis et validissimis confertim nascentibus, obsito, flore luteo.* Sloane, v. 2, p. 149, t. 224, f. 1. *Brachiatus et articulatus, articulis ovatis compressis, aculeis longissimis confertis.* Browne, p. 237.

Proliferous-jointed, loose; joints ovate; spines setaceous.

The roots are two or three feet long, tapering, and white. Above ground there is no stalks, but leaves growing out of the sides or tops of one another, six or seven feet high. Each leaf is about a foot in length, nine inches broad, an inch thick, of a lively sea-green colour, very full of a mucilaginous or viscid juice, of an oblong roundish shape, and beset very thick on both sides with tufts of inch-long, white, crooked, and slender, prickles, four of them usually in the same tuft. With these prickles come out small leaves in knots, which fall off in a short time. At the bottom there is also much prickly down, which, on being handled, enters the skin, and is very difficult to be got rid off. The leaves frequently trail upon the ground, shooting out fresh roots, and extending to a considerable distance. As the tree rises in height the under leaves become more round, lose their prickles, become of an ash colour, and put on the appearance of a trunk. The leaves when fallen off, and cleared of their outward membrane, and pulp, shew a delicate reticulated texture, made by the nerves and filaments, variously branched, like the racquette used by tennis players, whence the plant received the name of *racquette* from the French. The flowers come out at the upper edges, and sometimes the sides, of the leaves, which are broad, consisting of many leaves, like those of the rose, of a yellow colour; the fruit augments till it attains the size of an ordinary fig, when it turns from green to purple, heart-shaped, and prickly, the prickles scarce perceptible; at its top there is a cavity where the flower stood. The small prickles are also thickly set round that part of the leaf on which the flower stands, like a cup. Under the skin of the cavity at top is a round substance, like the rowel of a spur, which must be taken out before it be eaten. Under succulent membranes lie the seed and pulp. The seeds are very many, roundish, flat, sinuated, with several impressions on them irregularly figured, and white, lying in a purple, in-odorous, sweet, pulp, which dyes whatever it touches of the same colour; and, when eaten, communicates a bloody colour to the feces and urinae. This plant sometimes sweats out a mucilaginous gum, recommended by the Spaniards as good for the stone. —It may be propagated from the seed or leaf, and grows plentifully in almost every part of Jamaica; growing on the barrenest soils, and on the tops of decaying walls. It is sometimes used for making fences, which, from the nature of its prickles, it is well adapted for, as no animal will attempt to break through them. The leaf of this plant, cleared of its prickles, and baked under embers, in wet paper or a thin leaf, is reckoned better than any other maturative cataplasm in cleaning ulcers, or in aposthumes, swellings, or fresh wounds; or they may be applied pounded and boiled with hogs lard. The clear juice of the roasted leaf is also very detersive and cleansing for sores. When split, beaten soft, and applied, the leaves are said to cure the crab-jaws. The young leaves are sometimes used by the negroes instead of ochras, for which they are no bad substitute. The fruit is of an astringent nature, and not un-

G g g

pleasant

pleasant taste, but should be eaten sparingly, as it is apt to bind the body. If one of the tufts of prickles be cut off, and the largest held by the point before the mouth, with a sudden blast of breath, the small downy prickles about its root will be sent off, and, lighting on any one near, will even work their way through the clothes to the skin, tormenting nearly as much as cowitch.—Sloane, &c.

2. COCHENILLIFER. COCHINEAL.

*Opuntia maxima*, folio oblongo rotundo majore, spinulis obtusis, molli-  
libus et innocentibus obsito, flore striis rubris variegato. Sloane,  
v. 2, p. 152. *Brachiatus et articulatus subinermis major, articulis*  
*oblongis et leniter compressis.* Browne, p. 237.

Proliferous-jointed; joints ovate-oblong, almost unarmed.

This, which is supposed to be the sort on which the cochineal insect feeds, is in all respects similar to the former; but it grows higher, eight or nine feet from the ground, and all its parts proportionately larger. This has no prickles, but, instead of them, small oblong protuberances. The flowers are streaked with red or purple. The following observations, on the above two species of *cactus*, are from Long's History of Jamaica:

“There are several varieties of this plant in Jamaica; but the species I shall particularly refer to, are what is called the *prickly pear*, with broad fleshy leaves, dotted with spikes; and the cochineal *cactus*, whose leaves are larger, more succulent, and free from spikes. The former sort is abundant in all the south-side parts of the island, growing in dry, hot, rocky, situations, and in very sterile soils; the other seems not to be a native, and requires a better soil; but although this is probably the Mexican plant, called by some *opuntia maxima*,\* it is certain that the cochineal is found upon both species indifferently. It is well known that these plants bear a succulent fruit or berry at the extremities of their leaves, filled with a juice of a delicate red colour, and agreeable taste. This juice is the natural food of the cochineal insect, which owes to it the value and property it possesses as a dye in some of our principal manufactures.—The exuviae and animal salts of the insect are, from the minuteness of its parts, inseparable from the essential principles of the dye; whence it follows, that such a heterogeneous mixture must necessarily destroy the brilliancy of colour inherent to the juice of this fruit; and that the juice itself, which alone contains the dying principle, must, if unmixed and brought to consistence, yield a true perfect colour, lively and brilliant, as we find it in its natural state.

“Upon this hypothesis, Mr. David Ritz, an ingenious gentleman of Kingston, in this island, proceeded in several experiments, to obtain from the plant artificially, what nature accomplished in the insect, and at length happily succeeded by inspissating the juice; but the means he used are not yet communicated to the public. Encouraged by this discovery, he went to England with seventy-six processes, differently manufactured, to try which would answer best as a substitute to the cochineal. After

\* Neither the leaf nor fruit of this species have any prickles. The flowers are of a very beautiful red or crimson. This is generally called the true cochineal plant. The insect that feeds upon it is of a silvery colour, larger, more plump, and yields a greater quantity of the dye. The difference in point of goodness, observable in the cochineal, is entirely owing to the plant it feeds upon. The prickly plants, so abundant in Jamaica, are covered with the same species of insect; but, not being the proper food for it, we find it in general diminutive, having very little red tincture in its body. I have seen several of the true cochineal plants, growing in Longville Garden, in the parish of Clarendon.

a great number of experiments, he found one process which communicated a crimson colour to silk and wool, superior to that given by cochineal; trials of which were made before a number of the principal dyers in and about London, at the museum of the Royal Society, invited there for that purpose. He also found two other processes, which promised, with very little alteration in their manufactory, to afford the colour-making dyes of scarlet and purple. Upon a moderate calculation it was found, that his colour would go further than three times the quantity of cochineal, which he accounted for by remarking, that there is a great part of the insect, as its skin, &c. which affords no dye, but that the whole of his process was genuine colour, with little or no impurity.

"Notwithstanding the advantages that might be derived to the nation from this gentleman's discovery, he met, upon the whole, with very little encouragement to prosecute his manufacture further. It was said, that "our commerce with Spain would be hurt by it;" for this very reason it ought to have been encouraged. I am a stranger to the annual importation of cochineal from the Spaniards, but the quantity must certainly be very considerable, as it is so largely consumed in our fabrics and medical compositions; but whatever the quantity may be, it is evident that the process discovered by Mr. Riz gave promise of rendering the importation of that article wholly unnecessary; and as his colour, weight for weight, was found to go further in dyeing fabrics, than thrice the quantity of cochineal, a great saving would be made by the dyers themselves, and their fabrics would be afforded at a cheaper rate, all which makes in favour of the national balance of trade. There is no doubt but the inventor, for a competent reward (of which he is well deserving), would have published the secret of his process; thousands of acres now waste in Jamaica might be cultivated with this plant, with little trouble or expence; and a quantity obtained answerable to the home demand.

"The fruit of this plant (the *opuntia*), eaten when it is ripe, is said to check fluxes by its mild restringency; it is also a powerful diuretic, and sometimes imparts a tinge to the urine; which furnishes a proof that the juice is not always altered with respect to the principles of its dye, by the animal salts and fluids with which it has to encounter in its secretion through the body.

"Modern discoveries have shewn a chemical method of ordering the cochineal dye, so as to retain a very great brilliancy of colour.

"Drebel, a Dutch chemist, first invented the process of obtaining from cochineal, by means of a solution of tin in *aqua regia*, a bright and solid scarlet, exceeding in beauty and lustre any before produced. This, however, answered only for woollen stuffs. Monsieur Macquer discovered lately the method of dyeing silks, and cottons, or linen, in equal perfection, by a slight variation in the common process. He first dipped a piece of silk into a saturated solution of tin in *aqua regia*, somewhat weakened by the addition of a quantity of water, so small as to produce no precipitation of the earth or the metal. Having expressed the liquor from the silk, and afterwards washed it in water, in order to free it from any superfluous part of the solution, he dipped it into a decoction of the cochineal, quickened (as is usual in the dyeing of woollen cloths) with a small quantity of cream of tartar. The silk immediately took a full bright colour, which resisted all the tests or proofs usually employed on wool.

"The dyers are therefore, it appears from this narrative, now possessed of the art of giving the cochineal dye a brilliancy, perhaps somewhat nearer to that of the cactus juice; yet, in all manufactures of this sort, it is certain, that the cheaper and simpler

the dye is that is principally required, and the shorter and less laborious the process, the more useful and valuable it ought to be esteemed; and therefore, without detracting any thing from the merit of Mr. Macquer's discovery, we must presume that the preparation of the juice, invented by Mr. Riz, which strikes at once the perfect colour with all the lustre that the dye naturally possesses, is, by reason of its simplicity, cheapness, and facility of the process, very far superior, exclusive of its being the production of a British colony, and obtainable, with a vast annual saving to the national stock of riches, and general balance of trade.

"The juice of the fruit is probably reducible to a consistence, by exposure to the air and sun, like the juice of aloes; but the difficulty was to fix and render it undischageable (without injury to the colour), from the principles of the mixture with which it is combined for the dyer's purpose; and a process to this effect constitutes the chief merit of the discovery made by Mr. Riz."—Long, p. 731.

It is much to be regretted that Mr. Riz's ingenious discovery, noticed in the above extract, still remains a secret, and is now, perhaps, for ever lost!

## 3. TUNA.

*Opuntia major spinosa caulescens, foliis atrovirentibus longis et angustis pendulis, flore rubro.* Sloane, v. 2, p. 154, t. 224, f. 2, N° 11 & N° 12. *Brachiatus et articulatus, articulis oblongo ovatis compressus, caudice tereto erecto ferocissimo, aculeis bracheorum brevibus confertis.* Browne, p. 237.

Proliferous-jointed; joints ovate-oblong; spines subulate.

This grows about nine feet high, and is called the *great Indian fig*, or *upright prickly pear*; it has a straight tapering stem, about six inches in diameter, very thick, set with tufts, star-fashion, of whitish prickles. In trees nine feet high the stem is eight feet long, and the leaves come out at top one out of another, hanging downwards towards the ground; they are like the leaves of the foregoing species, but of a deeper green, longer, and narrower. The fruit and flowers are also similar, but smaller, and of a red colour.

## 4. ALATUS. WINGED.

*Opuntia non spinosa minima caulescens, foliis pilosis strictissimis, crenis foliorum fructum et florem proferens.* Sloane, v. 2, p. 159. *Mitis minor, sarmento flexili rotundo; frondibus longis compressis crenatis, ad crenas floridis.* Browne, p. 237.

Stem upright, compressed; branches opposite, bifarious, compressed; spines bristle-shaped.

This has a round, ash-coloured, flexile stem, from which issue several leaves, which at first are very hairy, and grow to a foot in length, and an inch broad in the middle, decreasing to both extremes; they are of a pale green colour, have a nerve running through their middles, and round indentures on their edges, out of which proceed the flowers, succeeded by small compressed fruit. The stalk, when cleared of its succulent parts, shewed the reticulated fibres common to plants of this kind.—Sloane.

## 5. PENDULUS. PENDULOUS.

*Fiscum ramulis et foliis longis densissimis striatis et radiatis.* Sloane,

v. 2, p. 93. *Parasiticus; inermis, aphyllus, ramosus, propendens; ramulis gracilibus, teretibus, striatis.* Browne, p. 238.

Pendulous, branches in whorls, round, smooth; without prickles.

This is called by Browne the slender parasitical *currant cactus*, or *Indian fig*, which grows pretty frequent in St. Mary's, chiefly on the largest trees in the wood, hanging commonly three or four feet from its fastening or root. The stem is roundish, green, woody, striated, as big as a goose-quill, having a large pith, divided into several slender, round, striated, branches, and they into twigs, at distances of one, two, and three inches; at which divisions are set little twigs, an inch and a half long, in whorls, appearing bushy.—Sloane.

6. TRIANGULARIS. THREE-ANGLED.

*Ficus Indica folio triangulari ensiformi (profunde canaliculato) stellatim aculeato.* Sloane, v. 2, p. 155. *Debilis brachiatus, equalis, triquetrous, scandens vel repens; spinis brevissimis confertis.*—Browne, p. 238.

Creeping, triangular.

Browne calls this the *strawberry pear*, and Sloane, who describes it as follows, the *prickly-withe*: "It hath several small roots, white, tapering, and very strong, sticking to the barks of the trees it grows on; from them comes several very green leaves, protruding one another, triangular, furrowed between the angles very deep, the cavity being round, very smooth, and of a fresh green colour, looking just like the shape of a three-cornered sword blade; on the three angles stand tufts of small, short, white prickles, in rows, very thick, star-fashion. Every leaf is a foot and a half long; they creep up trees and stick close to them, rising forty or fifty feet high. When the prickles and succulent part of the leaves fall off, there remains the long, round, and strong, inward part, which is made use of for withes. The flowers come out on the leaves, as on others of this kind; at first appears a woolly round knob, which afterwards augments, and shews on its outside a great many long, scaly, reddish-green, leaves, one longer than another, enclosing several very long white petala, in the middle of which stand many long stamina; the whole looking like the flower of the white lily.—The under part of this flower beginning to swell the petala drop off, and it grows to the bigness of an apple, with several protuberances on its surface, of a reddish-yellow colour when ripe, and contains within a thin skin, a white, pleasantly sweet pulp, inclosing a great many small black seeds. Sometimes it creeps on the ground, and then it is much larger and fairer. The fruit is ripe in December and January, and when eaten, makes the urine red, as do prickly pears. It is much used for withes. The fruit is the pleasantest of any of this kind."—Sloane.

7. FLAGELLIFORMIS. WHIP-FORM.

*Cereus minima serpens Americana.* Sloane, v. 2, p. 158. *Cylindraceus, sulcatus, pusillus, repens; aculeis setaceis confertis.*—Browne, p. 238.

Creeping, ten-angled.

This is called the *pink-flowered creeping cereus*, and has furrows, ribs, and prickles, like the other species, but is not above half an inch in diameter. It climbs trees, and sticks closely to their bark, with broad soft clavicles, mounting forty or fifty feet, and

...er times creeping on rocks and the ground. The flowers are produced in abundance and are of a more brilliant red than any of its kind. It is easily propagated from cuttings, and is well worthy of cultivation for ornament, as it is a most beautiful plant.

## 8. PERESKIA.

*Grossularia fructu majore arbor spinosa; fructu folioso e viridi albicante.* Sloane, v. 2, p. 86. *Sarmentosus foliatus et spinosus, spinis geminatis recurvis, foliis mollibus ovatis.* Browne, p. 237.

Stem arboreous, round; prickles double-recurved; leaves lanceolate-ovate.

This is called sometimes *Barbadoes gooseberry*. The stem hath many prickles in tufts, some longer; some shorter; it grows about fifteen feet high, with well-spread branches, having prickles in the same manner. The leaves are roundish, very thick, and succulent: the fruit about the size of a walnut, having tufts of small leaves on it, and within a whitish mucilaginous pulp, containing small seeds like gooseberries.—Sloane. The fruit of most of the above species is shaped like pears or figs, from which circumstance the names are derived. They are all succulent plants, and grow in most parts of Jamaica.

See MELON and TORCH THISTLES.

## INDIAN GROUNDSEL.

## ERIGERON.

CL. 19, OR. 2.—*Syngenesia polygamia superflua.* NAT. OR.—*Compositæ.*

This generic name is derived from two Greek words signifying spring and an old man, because the European species are hoary in the spring.

GEN. CHAR.—Calyx common, oblong, cylindric, imbricate; corolla compound, rayed; stamens in the hermaphrodites, five, short, with cylindric anthers; pistil in same has a small germ, crowned with a down longer than its corollet, style filiform, stigmas two, slender; no pericarp, the calyx converging; seeds small, oblong; down long, hairy; the seeds of the females similar; receptacle naked, flat. Two species are natives of Jamaica.

## 1. JAMAICENSE. JAMAICA.

*Senecio minor, bellidis majoris folio.* Sloane, v. 1, p. 260, t. 152, f. 3. *Tomentosus, foliis oblongo ovatis, levissime denticulatis; petiolis brevibus.* Browne, p. 320.

Stem few-flowered, sub-villose; leaves wedge-form, lanceolate, with two serratures on each side.

Root almost single, but sometimes sub-divided, descending; root-leaves lanceolate, wedge-form, sub-sessile, rounded at the end, with two, seldom three, distant serratures at top on each side; stems erect, or ascending, often a span high, filiform, pubescent, almost single; stem-leaves alternate, distant, lanceolate, acute, small, nearly entire. Flowers sub-solitary, terminating, peduncled, whitish; common calyx single, scarcely imbricate; scales membranaceous about the edge; down appearing serrate when magnified, of a brown colour; receptacle warted; calyx spreading.—Sw.

Sloane observes that the roots are smooth, white, no bigger than threads, and an inch and a half long; stem round, hoary, five or six inches high, having few leaves, placed



placed without order, sessile, with a narrow beginning, augmenting to a round end, about an inch long, rough, hoary, of a whitish-green colour, very often having two or three notches. Flowers on the top of the stem, and from the axils, resembling those of groundsel, composed of many yellow florets close set together, encircled by many whitish, long, narrow semi-florets. He found it on the banks of the Rio Cobre.

## 2. RIVULARE. RIVER.

Leaves wedge-shaped, acute, rough with hairs, toothed on both sides at the tip, ciliate at the edge, those of the stem sessile; stem almost simple, erect, few-flowered.—*Sw.*

## INDIAN KALE.

## ARUM.

CL. 20, OR. 9.—*Gynandria polyandria.*NAT. OR.—*Piperitæ.*GEN. CHAR.—*See* Coccoes, p. 211.

## 1. ESCULENTUM. EATABLE.

*Arum minus, nymphaeae foliis esculentum.* Sloane, v. 1, p. 167, t. 106, f. 1. *Acaule medium, foliis cordato sagittatis quandoque auritis, radice minori carnosa.* Browne, p. 332.

Leaves peltate, ovate, quite entire, emarginate, or semi-bifid, at the base.

This has a small tuberous root, bigger than a walnut, and several leaves, rising from the same root, about a foot high from the ground; the leaf resembling those of cocoes, but much smaller, and of a pale green colour. Sloane says the roots are eaten as potatoes, but the chief use of this vegetable is as a green, and a delicate, wholesome, agreeable, and opening, one it is, as any in the world. In soup it is excellent, for such is the tenderness of the leaves that they in a manner dissolve, and afford a rich, pleasing, and mucilaginous, ingredient. It is very generally cultivated in Jamaica; and Browne justly observes, that a small bed of it is sufficient to supply one or two families throughout the year, for it grows luxuriant and quick, after being frequently cut; but, as in time the leaves diminish in size, it should be occasionally transplanted, which is easily done by separating the roots.

## 2. SAGGITTIFOLIUM. ARROW-LEAVED.

*Arum minus esculentum, sagittariae foliis viridi nigricantibus.*—Sloane, v. 1, p. 167, t. 106, f. 2. *Acaule, foliis triangularibus sagittatis, angulis divaricatis acutis.* Browne, p. 332.

Leaves sagittate, triangular, the angles divaricate-acute.

This is a kind of Indian kale, equally good, and in every way much resembling the former; the leaves are larger, narrower, and not so round, of a dark green colour, and somewhat corrugated on the surface, with a welt round the edges. Both species are generally planted for the use of the table, and in wholesomeness and delicacy they are far superior to spinach; in these respects they may vie with any European vegetable whatever.

*See* COCOES—DUMB CANE—FIVE FINGER—WAKE ROBINS.

INDIAN.

## INDIAN MALLOW.

## URENA.

CL. 16, OR. 6.—*Monadelphica polyandria*. NAT. OR.—*Columnifera*.

GEN. CHAR.—Calyx a double perianth, outer five-cleft, inner five-leaved; corolla five-petaled; stamens numerous filaments, united at bottom, with roundish anthers; the pistil has a roundish germ, a simple style, and headed stigma; the pericarp is a roundish capsule, echinate, five-cornered, five-celled, with the cells closed, and one seed in each. Two species are natives of Jamaica.

## 1. SINUATA. CUT-LEAVED.

*Malva vel alcea fruticosa, ribesii foliis, seminibus asperis.* Sloane, v. 1, p. 37. *Foliis profunde quinquelobis; lobis inferne angustioribus, denticulatis; floribus confertis ad alas.* Browne, p. 281.

Leaves three-glanded underneath, sinuate-five-lobed; lobes angular, tooth-letted, obtuse.

Stem shrubby, from one to two feet high, branched, upright, pubescent; branches nearly simple, erect, round, pubescent; leaves petioled, alternate; lower roundish, five-cornered, sub-serrate; middle cordate, five-cornered, with the corners blunt, serrate-toothed; upper sinuate-five-lobed, tooth sinuate, nerved, hirsute, hoary underneath, having a glandular pore in the middle nerve. Petioles longish, round, erect, pubescent. Flowers axillary, on very short peduncles, blood-red. Outer calyx five-leaved, linear, erect, blunt; inner five-parted, with erect lanceolate segments, the length of the outer; petals five, contiguous at the base, oblong, obtuse, entire; capsules five, close, connected, echinate; seeds oblong, compressed, even.—Sw.—Sloane says the seeds have many little prickles. Browne says it grows commonly in the lower hills, and is remarkable for the lobed form of its leaves, and the compressed make of its rugged capsules.

## 2. TYPHALEA.

*Fruticulosa, foliis serratis oblongis; floribus congestatis, pedunculis longissimis terminalibus incidentibus.* Browne, p. 281.

Leaves oblong-lanceolate, serrate; heads of flowers peduncled, terminal; outer calyx five-cleft; capsules with three awns.

Browne calls this the shrubby erect *urena*, with bearded seeds, and says it is very common in the woods, growing generally to the height of four or five feet, or more.—The leaves are pretty large; and the seed vessels, which are composed each of five cells, loosely connected together, carry three long bearded bristles, or setæ, on the top of each cell, whereby they adhere to every thing that touches them.—Browne.

See MALLOWS and MARSH MALLOWS.

## INDIAN MULBERRY.

## MORINDA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Aggregata*.

This name is derived from *morus* and *indus*, the Latin words for the English name.

GEN.

GEN. CHAR.—Common calyx roundish; perianth five-toothed; corolla one-petaled; funnel-form; stamens five very short filaments, inserted into the tube; anthers linear, erect; the pistil has an inferior germ, a simple style, and bifid stigma; pericarp a sub-ovate berry, one-celled; seeds two, convex on one side, flat on the other. One species is a native of Jamaica.

ROYOC.

*Sub-fruticosa, foliis oblongis angustis utrinque acutis, radice crocea.*  
Browne, p. 159.

Procumbent.

Stem shrubby, a foot high, procumbent at bottom, branched; branches simple; leaves petioled, lanceolate, entire, smooth; branchlets from the axils of the leaves, opposite. Flowers terminating, aggregate, in a globular receptacle, white; calyx tubular, thick, undivided; tube of the corolla villose within, with a nectariferous base; style bifid; stigmas reflex; berries aggregate, with two seeds in each.—*Sr.* Browne notices four kinds of this plant, the smaller shrubby, the narrow-leaved climbing, the oval-leaved climbing, and the larger shrubby, *morinda*; all, he says, common about the lowlands, and frequently found climbing among the bushes in all the lower hills; the roots colour linens of a dark hue, and he supposes may prove an useful ingredient among dyers. Long calls it *yaw-weed*, but gives no reason why it is so called.

#### INDIAN SHOT.

#### CANNA.

CL. 10, OR. 1.—*Monandria monogynia.* NAT. OR.—*Scitamineæ.*

GEN. CHAR.—Calyx a three-leaved perianth; leaflets lanceolate, erect, small, coloured, permanent; corolla one-petaled, six-parted, divisions lanceolate, conjoined at the base, the three outer ones erect, larger than the calyx; the three inner ones larger than the outer, two erect, one reflected, and thus constituting the upper lip; nectary petal-like, two-parted, of the length and figure of the petals; the upper division ascending, the inferior revolute, imitating the lower lip of a corolla; the stamen has no filament, anther linear, growing to the upper margin of the division which bears the nectary; the pistil has a roundish, rugged, inferior, germ; style single, ensiform, growing to the anther-bearing nectary, lanceolate, of the length and figure of a petal; stigma linear, growing to the margin of the style; the pericarp is a roundish capsule, rugged, crowned, three-grooved, three-celled, three-valved; seeds few, globular. One species is a native of Jamaica.

INDICA. INDIAN.

*Canna Indica.* Sloane, v. 1, p. 253. *Capsulis verrucosis spatulis bifloris.* Browne, p. 113.

Leaves ovate, acuminate at both ends, nerved.

This plant has a thick, fleshy, tuberous root, which divides into many irregular knobs, spreading witle near the surface of the ground, sending out many large ovate leaves without any order, which are twisted at their first appearance like a horn, but afterwards expand, and are frequently from eighteen to twenty inches long, and seven

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or eight broad in the middle, lessening gradually to both ends, and terminating in points; they have many fine transverse veins running from the mid-rib to the sides, and the leaf is finely channelled below every eighth vein, and prominent above, the other veins running in fine lines parallel to each other, like music lines, and in number seven, between the two larger ones; the leaves are beautifully waved. The stalks are herbaceous, rising four feet high, encompassed by the broad leafy footstalks of the leaves; they are compressed on two sides. At the upper part of the stalks, many of which rise from the same root, the flowers are produced on loose spikes, each being at first covered by a leafy hood, which afterwards stands below the flower, and turns to a brown colour. Each flower has one petal, cut almost to the bottom into six slender segments, the three upper broadest, of a bright-scarlet colour, and very elegant; encompassed by a three-leaved calyx, which sits upon a small, roundish, rough, germ, which, after the flower is fallen, swells to a large fruit or capsule, oblong and rough, having three longitudinal furrows, crowned by the three-leaved calyx. When the fruit is ripe, the capsule opens lengthways into three cells, filled with round, hard, black, shining seeds, six in each cell, about the size of English peas. This plant flowers all the year, but principally in June, July, and August. The *lutea*, an East Indian variety, or species, bearing a yellow flower, has been introduced.

This is so called from its seed being round, black, and so hard, that, blown through a trunk or pith, it will kill small birds; they are drilled through, and strung to make beads and bracelets. It grows exactly like the Indian arrow-root, only the flower of this is of a most beautiful scarlet colour. The leaves are cooling and cleansing; applied to the hypochondres, with water-lily and aninga-oil, they abate the hardness of the spleen. The juice of the root corrects the corrosive poison of mercury sublimated; dropped into the ear, eases pain; and, mixed with sugar, and applied to the navel as a cataplasm, cures a diabetes.—*Barham*, p. 76.

## INDIAN SORREL.

## HIBISCUS.

CL. 16, OR. 6.—*Monadelphica polyandria*. NAT. OR.—*Columnifera*.

GEN. CHAR.—See Changeable Rose, p. 175.

## SUBDARIFFA.

*Alcea acetosa, trifida folio Indiae orientalis*. Sloane, v. 1, p. 224.—  
*Rufescens acetosus, foliis trilobis*. Browne, p. 285.

Leaves serrate, the lower ovate, undivided, the upper seven-parted; stem unarmed; flowers sessile.

Root annual, single, descending; stalk herbaceous, from one to three feet high (or more); upright, sub-divided, round, smooth, of a blood-red colour. (Stem and branches hollow and pithy). Leaves alternate, broad-ovate-acuminate, blunt at the end, crenate, nerved, smooth on both sides, the upper ones three or five-parted, upright; petioles the length of the leaves, spreading, round, smooth, coloured; flowers axillary, solitary, largish, on very short, round, thick, peduncles: the outer calyx has ten linear, awl-shaped, upright leaflets, of a dark purple colour; inner cup-shaped, the clefts broad-lanceolate, sharp, pale, with three purple lines, ciliate at the edge; petals

petals connate at the base, ob-cordate, larger on one side, veined, of a very pale sulphur colour, with a dark blood-red bottom; capsule closed by the calyx, ovate, seeds angular, black; sometimes the leaves are entirely undivided.—Sw. There is a variation of this species which is thoroughly green. The former, commonly called *red-sorrel*, is most generally cultivated, as its acid is the sharpest of the two. The flower-cups and capsules, freed from the seed, are the only parts used; they make agreeable tarts; and, a decoction of them sweetened, is what is commonly called *sorrel cool-drink*. It is a small diluting liquor, reckoned very refreshing and diuretic. The acid of these plants is of a more lively and pleasant nature than that of common sorrel; they blossom about October, and the flowers and cups make very agreeable tarts, and excellent vinegar. A syrup is also made by taking the most juicy capsules, and adding twice or thrice their quantity of double-refined sugar. Put this mixture, without any water, into a glass vessel, and place it into a sand heat, the digestion may be carried on with a moderate heat, till the leaves are all dissolved. A drink may be made of the preserved sorrel of a diuretic nature, to which a little nitre should be added. Hernandez says the root, given to two drachms, is an easy purge. The stalks afford a kind of hemp, which makes good lines.

See CHANGEABLE ROSE—MAHOE—MUSK OCHRA—OCHRA.

## INDIGO.

## INDIGOFERA.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceae*.

GEN. CHAR.—Calyx a one-leaved, spreading, perianth, nearly flat, five-toothed; corolla papilionaceous, the keel having an awl-shaped spreading spur on each side; the stamens disposed in a cylinder, diadelphous, ascending at their tips, with roundish anthers; the pistil has a cylindric germ, a short ascending style, and obtuse stigma; the pericarp a linear roundish legume, with kidney-shaped seeds. Three species are natives of Jamaica.

## 1. TINCTORIA. DYING.

*Colutea affinis fruticosa, floribus spicatis purpurascens, siliquis incurvis, e cujus tinctura indigo conficitur.* Sloane, v. 2, p. 34, t. 179, f. 2. *Decomposita, diffusa, minor et humilior; ramis gracilibus.* Browne, p. 302.

Leaves pinnate, ob-ovate; racemes short; stem suffruticose.

The stem of this plant is filiform, sub-flexuose, angular, branched at top; branches alternate; leaflets in four pairs, or more, very blunt, pointed, smooth, finely villose beneath; the racemes from the axils of the leaves, when they begin to flower shorter than the leaf, but becoming longer as they advance. Legumes drooping, sub-columnar, sharp, straight, very finely villose. This plant is not so hardy, says Dr. Browne, nor does it give so good a pulp as the following species; but it yields a great deal more of the dye than either of them, and is, for that reason, generally preferred, though subject to a great many more mischances. It seldom rises above two feet and a half in height, and seems to divide rather than to branch in its growth.

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2. GUATIMALA.

## HORTUS JAMAICENSIS.

### 2. GUATIMALA.

*Assurgens minusque divisa, ramulis crassioribus striatis, spicis axillaribus.* Browne, p. 302.

This is much hardier than the foregoing, and affords a finer pulp; but it does not yield so great a quantity of it, and is only cultivated where the seasons are not certain, or in mixt fields. It grows commonly to the height of three or four feet, and throws out a good many sub-erect branches as it rises.—*Browne*...

### 3. ANIL.

*Colutea affinis fruticosa argentea, floribus spicatis, e viridi purpureis, siliquis falcatis.* Sloane, v. 2, p. 37, t. 176, f. 3. *Assurgens, sub-villosa et sub-cinerea; ramulis crassioribus; siliquis arcuatis, brevioribus, reflexo patentibus.* Browne, p. 302.

Leaves pinnate, lanceolate; racemes short; stem suffruticose.

This has the habit and appearance of the first sort. Leaflets oblong, bluntish, the younger ones sharpish, naked above, hoary underneath, all equal. Racemes lateral, sub-spiked, shorter than the leaves: legumes declining, recurved, inclined to columnar, many seeded, more gibbous at each suture, mucronate.—*Linneus*. This is very common in Jamaica, and grows wild in all the savannas, where, doubtless, it has been cultivated in former times; although the manufacture is now altogether lost and neglected, and most probably never will be restored, from the baneful effects of oppressive taxation. This plant has a smaller leaf than the other, but a much larger woody stem, growing to the height of eight or ten feet; it is also much hardier, and the dye extracted from it generally the best; of a fine copperish cast, and close grain. All the species thrive best in a free rich soil and warm situation, frequently refreshed by moisture. The following is the mode in which it was generally cultivated and prepared for market:

It may be planted at any season of the year. (The best time is considered the month of March). The land is first hoed into little straight trenches, about two inches deep, and from twelve to eighteen inches asunder; the seed is sown in these trenches, not very thick, and then lightly covered in with earth. A bushel of seed is allowed for six or eight acres. If the weather proves warm and serene, the plant will appear above ground in a few days, and, with moderate showers to bring it forward, will be fit to cut in six or seven weeks. The ground must be hoed and cleaned as soon as the young plants appear, to loosen the soil about them, and facilitate their growth. In some parts, they do not come to perfection under two or three months; and are generally observed to answer best when cut in full blossom, as the leaves are then thick, and fullest of juice. The French distinguish the time by squeezing a plant in the hand; and, if the leaf cracks, they suppose it to have acquired the due maturity. The vats for manufacturing it are generally three, placed in a regular flight, like steps, one ascending to the other. The highest, which is the largest, is called the steeper, and the dimensions about sixteen feet square, and two feet and a half in depth. This opens by one or two holes, made through a junk of hard timber (built in the front wall towards the bottom), into the second, which is of greater depth; and the second opens in the like manner into the third, or smallest. These latter are called batteries, or beaters; and some make them both of equal size, which, in proportion to the dimensions above given, ought to be twelve feet length by ten breadth, and four and a half depth in the clear.

clear. They are builit with masonry, and lined with a strong terrace, like the steeper, or of close grained plank (not cedar) of two inches and an half thick, well fastened to the frame with large spike nails, and caulked to prevent leaking. Vats of these dimensions are proper for about seven acres of the plant.

When every thing is in readiness, the plant is cut,\* and regularly laid in the steeper, with the stalk upwards (which hastens the fermentation), till this vat is three-parts full. A number of rails are then laid the whole length of the vat, at the distance of about eighteen inches from one another: these are strongly wedged down, by means of timbers, which are made to press upon them, to prevent the plant from buoying up when water is put upon them. The softest water answers best for the purpose; and as much is let in as the weed will imbibe, covering it with a surface of four or five inches. In this state it is left to ferment. In twenty-four hours it grows so hot, that no one can bear the hand in it; and, if the process goes on well, it will bubble like water in a pot upon the fire, and shew a tinge of very dusky blue. Great nicety is required, as well in not suffering the tender tops to run into putrefaction, which might spoil the whole, as in drawing off the water at the critical moment; for if it is drawn two hours too soon, great part of the pulp will be lost; and if the fermentation is kept on as much too long, the labour will be lost.

To avoid these disasters, a handful of the weed is frequently taken out; and, when the tops are observed to become very tender and pale, and the stronger leaves to change their colour to a less lively pale, this is known to be the proper point;† and the liquor must be speedily drawn off into the second vat, there to be thoroughly beaten and incorporated;

\* Some persons are of opinion that the plants should not be cut nearer the ground than six inches, and that a few branches should be left on the stem. This practice, they say, will draw up the sap better, and produce a more luxuriant ratoon than when a naked stalk only is left. During the first cutting it is usual to leave some of the most flourishing stalks for seed, which ought not to be gathered until it is well hardened in the pod. It generally requires ten bushels of the pod to produce a single bushel of clean dry seed fit for sowing. It may also be observed, that many indigo planters have a notion that the plant yields the greatest quantity of the dye, when cut at the full of the moon. Of this fact I can assert nothing.—*Edwards*.

† To obtain a certain knowledge of the proper degree of fermentation has hitherto been the grand desideratum of the cultivator. Repeated experiments for this purpose were made some years ago in the island of Hispaniola, under the sanction and encouragement of the Chamber of Agriculture, and instructions (which were said to be practised with great success by Messrs. Daingalt and Mongon, indigo planters in that island) were published by authority, to this effect:

“After the indigo has been steeped in the cistern eight or nine hours, draw off a little of the water, and, with a pen dipped into it, make a few strokes upon white paper. The first will probably be high coloured, in which case the indigo is not sufficiently fermented; this operation is to be repeated every quarter of an hour, until it loses its colour; when it is arrived at the true point of fermentation.”

It is astonishing that an experiment so simple in itself, if it answers, should have been for so many years unknown to the indigo planters in general; and I confess, that, although I have had no opportunity of giving it a trial, I am myself somewhat doubtful of its efficacy. The following method, which I give on the authority of Mr. Lediard, is, I conceive, attended with much greater certainty:

“Let a small hole be made in the steeper, six or eight inches from the bottom, exclusive of the opening or aperture for drawing off the impregnated water; let this hole likewise be stopped with a plug, yet not so firmly but that a small stream may be permitted to ooze through it. After the plants have been steeped some hours, the fluid oozing out will appear beautifully green, and at the lower edge of the cistern, from whence it drops into the battery, it will turn of a copperish colour. This copperish hue, as the fermentation continues, will gradually ascend upwards to the plug, and, when that circumstance is perceived, it is proper to stop the fermentation.”

“During the progress of this part of the business, particular attention should be paid to the smell of the liquor which weeps from the aperture; for, should it discover any sourness, it will be necessary to let the fermented liquor run immediately into the battery, and lime-water of sufficient strength must be added to it, until it has lost its sourness. As it is running off it will appear green, mixed with a bright yellow, or straw-colour; but in the battery it will be of a most beautiful green.”—*Edwards' History*.

incorporated; to perform which operation, a variety of machines have been invented.\* In Jamaica they formerly suffered the liquor to stand twenty-four hours in this second vat, and then churned it for three or four hours with paddles or pieces of board, drilled full of holes, and fastened on the end of long poles. The French made use of a kind of buckets, without any bottom, fixed to poles, which rested on pivots, and were pulled up and let fall again, alternately, with a jerk. But far more convenient machines are now constructed, with a cog-wheel, which moves the levers or beaters with greater regularity, and saves the labour of many negroes; the whole being kept in motion with a single horse or mule; and one of them will perform more work in half an hour, than six negroes are able to do in six hours; so that they fully answer the expence of erecting them, and frequently reduce an imperfect tincture into grain, which could hardly otherwise be brought about. When the liquor has, by means of such a machine, or any other method, been well churned for the space of fifteen or twenty minutes, a little of it being taken up in a plate will appear curdled, or as if full of a small grain. A quantity of clear lime-water, always kept ready for the occasion, is then gradually let in, to augment and precipitate the *fecula*; the stirring and beating the indigo water being still continued, and the colour and appearance of the *fecula* being carefully examined from time to time, as the work advances; for the grain passes, by degrees, from a greenish cast to a fine blue, which is the proper colour when the liquor has been sufficiently worked. Too small an agitation will leave the grain coarse and green, whilst too long continued a beating causes it to turn almost black. By examining it, therefore, repeatedly during the process in a silver cup, or a soup-plate, the operator may soon learn to distinguish whether to have his indigo of a deep copperish blue, or of a paler complexion, as he chuses. When the liquor wherein the *fecula* swim is quite clear, he may be satisfied it has lime-water enough. The lime-water must be perfectly clean, or otherwise the indigo will be very much speckled; nor should too large a quantity of it be let in, which would render the indigo too hard, and of a greyish cast. When the indigo water has acquired a strong purple colour, and the grain has become scarcely perceptible, it must be left to settle, which it will do in eight or ten hours. The clear water is then very gently drawn off, out of the beating vat, through the plug holes, fixed for that purpose a few inches above the floor at bottom; and the sediment remains behind, which is carefully strained through a horse-hair sieve, to render the indigo perfectly clean, and then put into bags of osnaburg, or other coarse linen, eighteen inches long and twelve wide, which are suspended for about five or six hours in the shade, to drain out the water. The mouths of the bags are then well fastened, and put into a press, to be entirely freed from any remains of water, which would hurt the quality of the dye. The press is a box of five feet in length, two and a half width, and two depth, having holes at one end, to let off the drained water. In this box the bags are piled one upon another, until it is quite full; a plank, fitted just to go into it, is laid at top, and loaded with a sufficient number of weights, which, by a gradual constant pressure, entirely squeeze out the water, and the indigo becomes a fine stiff paste. It is then taken out of the bags, spread upon a plank,

\* Some have used the following simple contrivance on this occasion with success. A small square stick, painted white, and graduated with black lines, of six or eight to an inch (the inches being numerically marked from the bottom), is fixed conveniently within the steeper in a perpendicular position. This is carefully observed, from time to time, to note with exactness the highest rise of the scum; and immediately when it begins to subside, the plug is to be drawn out, and the liquor discharged into the next vat. A similar method is practised in Egypt, to discover the increase or fall of the Nile by a graduated column, called the *mokkias*; from whence, perhaps, the hint was taken.



plank, and cut into squares of two inches each, which are ranged, under cover, in a free air, without exposure to the sun, which would be very hurtful to the colour of the dye. Whilst it is in the drying house, it should be turned three or four times a day to prevent its rotting. The flies must likewise be driven from it. Care is taken to have it thoroughly dry before it is packed, because, if it is put damp into the casks for exportation, and headed up, it will sweat, and inevitably be spoiled. Good marketable indigo should be of a fine, copperish, blue, colour, deep, and shining, with a smooth grain. It should break easily, swim in water, and burn very freely, leaving some white cinders behind.

The faults of indigo generally arise, first, from too long a putrefaction, which gives it a dirty hue; so that it looks like black mould, or mud: secondly, from too little beating; and then it has a coarse grain, and a greenish colour: thirdly, from too much beating, which always imbues it with a black cast: fourthly, from a mixture of the particles of lime, when the lime-water has not been sufficiently depurated, or when too large a quantity of this water has been let in, which renders it greyish and hard: fifthly, for want of lime-water, or when none is used; by which neglect, it never comes to a due granulation, nor settles well, and deposits only an inconsiderable part of the substance. From all which it appears, that no small degree of skill and attention are required in conducting and perfecting this manufacture; and hence we may easily conceive, how the right management of it came to be lost in Jamaica, after the planters had for many years disused it; for much depends on the knowledge gained by a long course of experience and observation, to direct the exact degree of fermentation, of beating, and application of the lime-temper, as well as the method of curing and drying for the market.\*

This.

\* The following account of an essential improvement in the preparation of indigo, is a translation from the French of Citizen Bally: It ought to be gathered with great precaution, for fear of making the farina that lies on the leaves, and is very valuable, fall off. After describing the first process of cutting and macerating, he thus proceeds: "To bring the maceration to its ultimate point requires from fifteen to thirty-six hours, according to the temperature of the atmosphere, at the time of the operation. It is also necessary to take into consideration, the quality of the indigo plant, the nature of the soil that has produced it, and that of the water in which it is immersed. The first indication from which it is judged that the process of maceration approaches its ultimate point, is the sinking of the scum, which has elevated itself into the space of about half a foot, which was left unfilled in the vat. When this scum has become a kind of crust, of a copper-blue colour, it is then thought to be sufficiently macerated. However, this plan was often insufficient, and there was another method on which greater reliance could be placed; this consisted in drawing off a small quantity of the water, by means of a cock in the lower part of the vat; this being received in a silver cup, notice is taken whether the fecula tends to precipitate itself to the bottom of the cup, from whence the maceration is then supposed to be perfect. Such was the process most generally practised, but it often led into error: To avoid this, we have seen means, which consists in accurately observing the water contained in the cup; five or six minutes after it has been poured therein, it forms round the sides a ring or edge, which is at first of a green colour, but afterwards becomes blue. So long as the maceration has not produced its proper effect, this ring detaches itself with difficulty from the sides of the cup, but at last it is seen to precipitate and concentrate itself at the bottom of the vessel, always toward the centre, under the water, which is become limpid, though with a yellowish tinge. When these appearances are observed, they infallibly indicate the success of this first operation. The water is then drawn off into a second bason or tub, placed beneath the first. This second tub is termed the *batterie*, as its use is for beating the water, still charged with the fecula. In order that it may separate quickly, it is agitated, either by hand labour or the power of a mill, taking care not to agitate it too long, in which case the fecula would be remixed with the water, and, instead of indigo, nothing more than muddy water would be produced; but, to avoid this, it only requires attention. It is afterwards drawn off from the *batterie*, to a third or smaller receiver called the *diablotin*; we then find the *batterie* covered with a very liquid blue paste, which is put into bags of coarse linen cloth, of the form of inverted cones, which suffer the watery parts to run off; the bags are afterwards emptied upon tables in the drying rooms, where this blue paste is kneaded, and, after it has acquired a denser consistence, it is spread out and cut into small squares, in order that it may dry the sooner, after which it is ready for sale."

This valuable commodity is the principal ingredient known for dying a fine blue; and no part of the world affords better soil for the culture of indigo than the interior parts of Jamaica. Add to which, that it is not bulky in the carriage: and that a few barrels of small size, such as a mule may convey through the most difficult roads, will contain a quantity of it of great value. Fifteen negroes are esteemed sufficient to manage and attend twenty acres; and twenty-five negroes are allowed to fifty. Four negroes are therefore about equal to five acres; which proves that it may be entered upon by men of exceedingly small capitals; and, it is also certain, that they will have time for doing other occasional work through the year. One acre of rich soil, well planted, will, with good seasons, and proper management, yield two hundred pounds weight\* in twelve months; for this plant gives ratoons, or re-produces, affording four or five crops in a year; but must be replanted afterwards. One negro's load of good plants will produce one pound weight of good indigo; and, supposing a mule-load six times as much, the latter will be equal to six pounds weight. A planter, possessed of four negroes, and two mules, with five acres in this cultivation, may therefore be allowed, by prudent management, to make one thousand pounds weight per annum.

About the year 1620, the trade for indigo stood thus. Three hundred and fifty thousand pounds weight was spent in a year in Europe; which, at four shillings and six pence per pound at Aleppo, cost seventy-five thousand eight hundred and thirty-three pounds, six shillings, and eight pence; at one shilling and two pence in the East Indies, cost twenty thousand four hundred and sixteen pounds, twelve shillings, and four pence. In later times, Great Britain and Ireland have consumed eight hundred thousand pounds weight and upwards per annum; and were computed to pay France two hundred thousand pounds annually for what they bought from her. Jamaica once furnished a large supply; but the tax of three shillings and six pence per pound being injudiciously imposed by parliament, the planters were obliged to drop it, and went upon other commodities. In consequence, until the planters of South Carolina undertook this article, the French islands (and principally Hispaniola) supplied not only Great Britain but the greater part of Europe. About 1747, the Carolinians remitted about two hundred thousand pounds weight to Britain; which sold well, though of a quality inferior to the French; but they have since improved it so as to be nearly equal. Such were the effects of this high duty, which lost the nation many thousand pounds yearly, and extirpated indigo from Jamaica, to the ruin of several industrious families. A wiser parliament, after the manufacture began to thrive in Carolina, instead of laying on duties to prohibit, granted a bounty of six pence per pound weight on all indigo raised in the American colonies, and imported into Great Britain directly from the place of growth. The encouragement was politic; yet this article does not seem as yet to be cultivated in our colonies to such extent as to furnish the home demand; for the importation of French indigo is still permitted. Whence, it seems, that, for want of employing more of our lands in this article, the market for sugar will be glutted, and that for indigo not sufficiently stocked.

In 1672 Jamaica had sixty indigo works, chiefly in Vere, which produced fifty thousand pounds weight per annum. If, therefore, it had not met with so fatal a check,

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\* Thirty to eighty pounds weight is allowed for tolerable yielding in South Carolina. But it is to be observed, that these lands are poor in comparison with the fresh cleared wood-land of Jamaica, which requires to be exhausted by this, or some other vegetable of an impoverishing nature, before it will make sugar; and for such soils two hundred pounds weight will not appear at all exaggerated; and fifty pounds weight per acre, for the medium produce of indifferent soils.

we may judge, from this flourishing state of it at so early a period, that, in the course of twenty or thirty years, it would have yielded five or six times as much, and gone on increasing, in proportion to the home-demand, to the present hour, by which the nation might have saved some millions of money. At present, it is cultivated here by about twenty different settlers, most of whom reside in the parish of St. Thomas in the East. The medium produce in Jamaica of one cutting is fifty pounds weight per acre. Few, who have cultivated it here in the lowlands of late years, gained more than two cuttings, the first in July, the second in August, for want of seasons. In the wet rich lands of the interior parts, it is probable four or five cuttings a year might be got, as in Hispaniola; where the French cultivate it on fresh woodlands, to sterilize and prepare them for sugar, repeating the cut every six weeks, five times, or even oftener, in the year. And this kind of soil seems the best adapted, as it unquestionably produces an indigo of the best quality, and worth several shillings per pound weight more than what is made from poorer soils, or in situations which have not seasonable rains.—Hence, it will not succeed well in the lower savannah lands of Jamaica, whose staple is rich enough, but not sufficiently watered.—*Long*.

Mr. Edwards, after describing the cultivation and the process of making indigo, makes the following observations:

“To what has been said above of the nature of the plant, suiting itself to every soil, and producing four cuttings in the year, if we add the cheapness of the buildings, apparatus, and labour, and the great value of the commodity, there will seem but little cause for wonder at the splendid accounts which are transmitted down to us concerning the great opulence of the first indigo planters. Allowing the produce of an acre to be three hundred pounds, and the produce no more than four shillings sterling per pound, the gross profits of twenty acres will be twelve hundred pounds produced by the labour of only sixteen negroes, and on a capital in land and buildings scarce deserving consideration.

“Such, without doubt, will be the readers first reflections. Unhappily, however, the golden hopes which speculations like these have raised in the minds of thousands, have vanished on actual experiment, like the visions of the morning. I think I have myself, in the course of eighteen years residence in the West Indies, known at least twenty persons commence indigo planters, not one of whom has left a trace by which I can now point out where his plantation was situated, except, perhaps, the remains of a ruined cistern, covered by weeds, and defiled by reptiles. Many of them, too, were men of knowledge, foresight, and property. That they failed is certain, but of the causes of their failure, I confess I can give no satisfactory account. I was told that disappointment trod close at their heels at every step. At one time the fermentation was too long continued; at another, the liquor was drawn off too soon. Now the pulp was not duly granulated, and now it was worked too much.\* To these inconveniences, for which practice would doubtless have found a remedy, were added others of a much greater magnitude: the mortality of the negroes, from the vapour of the fermented liquor,

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liquor,

\* Mr. Edwards, in another place, observes, “that the sun, which improves and invigorates the plant, propagates at the same time an insect destructive to it. This is a species of grub or worm, which becomes a fly, and preys on the leaves, and never fails, in the West Indies, to disappoint the planters expectations the second year upon the same land; the only remedy is to change the soil every year. The want of due attention to this important circumstance has probably been one of the causes that so many persons have failed of late years, in their attempts to revive the culture of this valuable commodity.”

liquor, (an alarming circumstance, that, as I am informed, both by the French and English planters, constantly attends the process) the failure of the seasons, and the ravages of the worm. These, or some of these evils, drove them at length to other pursuits, where industry might find a surer recompense.

"Their history, however, furnishes a new illustration to a very trite but important remark, that a manufacture, once destroyed, scarce ever takes root again in the same country. Of the causes from which the general culture and manufacture of indigo was relinquished in Jamaica, enough has been said by other writers: yet the same arguments, which induced the British government to burthen this commodity with duties under which it sunk, are still urged in the case of other colonial products, and will continue to be urged, until the same fate attends many of them as attended indigo.—Of the monstrous folly and impolicy of loading with high duties an article so essentially necessary to the British woollen manufactory, (putting colonial considerations out of the question) the mother country is, I believe, at length sufficiently convinced, the quantity of indigo annually imported into Great Britain, from all parts of the world, being, I believe, one million and a-half of pounds, of which five parts in seven, are purchased with ready money from strangers and rivals!"

The following is a negro secret, and superior to mercurial ointment, for destroying the vermin which generally infest their woolly heads, and without the danger which attends the preparations of quicksilver, for that purpose: Half fill a bottle with the clean roots of the indigo, which grows commonly in the pastures, roads, and hedges, first scraped in the manner of horse-raddish. On these pour so much strong rum as will cover the roots; but not fill the bottle. Let the bottle be close corked, frequently shaken, and exposed to the sun-shine for some days. This infusion, well rubbed on the head, until the hair is thoroughly drenched, will as effectually and instantly destroy the vermin, as if boiling water had been poured on the part. May not a strong decoction of the roots, boiled in water, prove efficacious in killing fleas in the fur of dogs and cats—the lice in the feathers of domestic poultry—and the animalculi that occasion and communicate the mange among sheep, goats, or other animals? It is said, that in North America the wild indigo bush is stuck into the horses harness to keep off flies.

## INDIGO BERRY.

## GARDENIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Contortæ.*

This was named in honour of Alexander Garden, M.D. of Charlestown, in Carolina.

GEN. CHAR.—Calyx a one-leafed, five-cleft, superior, perianth; divisions upright, permanent; corolla one-petaled, funnel-form, contorted, border five-parted; the stamens have no filaments; anthers five, inserted into the mouth of the tube, linear, streaked, half the length of the border; the pistil has an inferior germ, style filiform or club-shaped, stigma standing out, ovate, obtuse, two-lobed, often furrowed; the pericarp a dry berry, one, two, or four, celled; seeds very many, flattened, imbricate in rows. Two species are natives of Jamaica.

1. ACULEATA.

1. ACULEATA. PRICKLY.

*Lycium forte, foliis subrotundis integris, spinis et foliis ex adverso sitis.* Sloane, v. 1, p. 40, t. 11, f. 4. *Foliis subrotundis confertis, summis ramulis bispiniferis, floribus solitariis.* Browne, p. 443, t. 8, f. 1.

Thorns opposite, both they and the flowers shorter than the leaves; branches smooth.

Spines of the branches decussated, leaves roundish, teeth of the calyx lanceolate-subulate, corolla salver-shaped. The berry is two-celled and even, when ripe a very thin partition remains. The form of the corolla varies extremely in this genus. The *mitis* (the following) or thornless randia, seems to be the same in a more advanced age, when it is common for trees and shrubs to lose their thorns.—Sw. This small shrub rises by a branched stalk, and shoots commonly to the height of seven or eight feet; the main stem is tough and hard; the branches somewhat prickly at the ends, and the leaves of an oval form, and growing in tufts; it is frequent in the lowlands, and grows chiefly in the most barren clayey soils. The pulp of the berries, which generally are numerous on the smaller branches, is very thick, and stains paper or linen of a fine fixt blue colour. I have tried it on many occasions, and have always observed it to stand though washed with either soap or acids, but it does not communicate so fine a colour with heat. It would prove an excellent fixed blue in all manner of paints and prints, if it could be obtained in any quantity; but the berry is not very succulent.—*Braque.*

2. MITIS. MILD.

*Cacao affinis, frutex spinosus, lycii facie jasmini flore albo, fructu in dispares particulas inter se arcte hærentes diviso.* Sloane, v. 2, p. 18, t. 161, f. 1.

This rises ten or twelve feet high, with a trunk as thick as the arm, having a reddish rough bark. The branches opposite, with opposite prickles; the leaves are also opposite, an inch long, and half as broad, of a yellowish-green colour, smooth and shining, sessile. The flowers are axillary, white, star-form, after which follow a half-inch long, green, umbilicated, fruit, tapering to both ends, containing within a thin green skin and a hollow, a black substance appearing like cacao nuts, having several irregularly sized parts close together.—*Sloane.* This is supposed to be only a variety, if not the same as the first species, but in an older stage.

Two exotic species of this genus have been introduced: the *florida*, or *Cape jasmine*, which is a very beautiful flowering shrub, and has been pretty generally and successfully cultivated in our gardens; the leaves are large, and of a lucid green; the flowers are produced at the ends of the branches, sitting close to the leaves, and, when fully blown, the double flower is almost as big as a rose, which has a very agreeable odour. It is planted for hedges in Japan, where the fruit and mucilage of the seeds are used as a yellow dye. The *thunbergia*, which grows to about six feet in height, branching very much.

## INGA-TREE.

## MIMOSA.

CL. 23, OR. 1.—*Polygamia monœcia*. NAT. OR.—*Lomentaceæ*.

GEN. CHAR.—See CACOONS, p. 137.

## INGA.

*Arbor. siliquosa Brasiliensis foliis pinnatis, costa media membranulis utrinque extantibus alata.* Sloane, v. 2, p. 58, t. 183, f. 1. *Foliis majoribus ovatis, per pinnas alatas et glandulatas dispositis; floribus sejunctis.* Browne, p. 253.

Unarmed; leaves pinnate, five-paired; petiole margined, jointed.

This tree is from ten to twenty feet in height; the trunk and branches unarmed; leaves pinnate, alternate; leaflets five-paired, sessile, connected by a margined subulate common petiole, ovate-lanceolate, generally entire, nerved, veined, smooth; glands solitary, between each pair of leaves; peduncles terminating, many-flowered; flowers in a short spike, large. Calyx one-leafed, five-toothed; corolla twice as large as the calyx, five-toothed; greenish-white: filaments monadelphous, very long; anthers minute; germ oblong; style filiform; stigma blunt: legume long, angular-compressed, with the sutures two-keeled. It grows on the banks of rivers, flowering early in the spring.—*Sæ.* This tree has several crooked branches, covered with a white smooth bark, hanging down to the ground; the leaves have an odd leaflet at the end, larger than the others; each pod contains a great many quadrangular soft peas, lying close together in a white sweet pulp, which is eaten by negroes.—*Sloane.* Browne says this tree is pretty frequent in St. Mary's.

See CACOONS—CASHAW—GUM-ARABIC—NEPHRITIC-TREE—SENSITIVE PLANT—WILD TAMARIND.

## JOB'S TEARS.

## OLYRA.

CL. 21, OR. 3.—*Monoecia triandra*. NAT. OR.—*Gramina*.

GEN. CHAR.—Male flowers below the females.—Calyx a two-valved, one-flowered glume, valves equal, lanceolate; outer sub-ventricose, terminating in a capillary, straight, even, awn; inner narrower, acute, folded in on both sides; there is no corolla; but a two-leaved very small nectary, with ob-ovate, sub-emarginate, membranaceous, erect, leaflets; the stamens are three capillary very short filaments, with linear anthers, acute at both ends. Females solitary, terminating on the same panicle, much larger than the males.—Calyx a glume, two-valved, one-flowered, large, spreading; valves almost equal, ovate, concave, nerved; outer terminating in a long awl-shaped, sub-flexuose awn, villose at bottom; inner narrower, acuminate; the corolla a two-valved glume, much shorter than the calyx, coriaceous, shining, awnless, blunt; outer much longer; nectary three-leaved, very small; leaflets ob-ovate, membranaceous, erect; the pistil has an oblong germ, a filiform style, almost the length of the calyx, and a capillary pubescent stigma; the pericarp a glume of the corolla, involving, falling; the seed ovate. There are only two species, both natives of Jamaica.

I. PANICULATA.

1. PANICULATA. PANICLED.

*Gramen panicum majus, spica simplici lavi, gravis petiolis incidentibus.* Sloane, v. 1, p. 107, t. 64, f. 2. *Arundinacea erecta indivisa, foliis brevioribus latiusculis, spica racemosa terminali.* Browné, p. 335.

Panicle terminating; culm branched.

This rises to the height of four feet, and grows wild in the woods; the culm is erect, jointed, round, branched at bottom; joints simple. Leaves sheathing, as it were shortly petioled at the end of the sheath, broad lanceolate, acuminate, horizontal, spreading, smooth, striated, marked with lines below; sheaths pubescent. Panicle terminating, erect, three inches long, spreading, many-flowered. Branches angular, rugged, flexuose; male spikelets numerous, pressed close to the branches of the panicle, alternate, pedicelled, three commonly contiguous; pedicels flexuose, filiform, short; female flowers solitary, terminating the male spikes, and three times the size of the males. This plant, which has all the appearance of a reed, is deemed excellent fodder for cattle. The seeds have a transparent glassy appearance, and are frequently strung for beads.

2. PAUCIFLORA. FEW-FLOWERED.

Flowers axillary.

This is also a native of Jamaica, first discovered and classed by Swartz. The flowers axillary, the leaves ovate.

No English Name.

IRESINE.

CL. 22, OR. 5.—*Dioecia pentandria.* NAT. OR.—*Holoraceae.*

GEN. CHAR.—Male calyx a two-leaved perianth, very small, acute, glossy; corolla five sessile, lanceolate-erect petals; nectary of five scales, the stamens being interposed; the stamens five upright filaments; with roundish anthers. Female calyx and corolla as in the male; pistil has an ovate germ, no style, two roundish stigmas; the pericarp an oblong-ovate capsule; seeds some, downy. There is only one species, a native of Jamaica.

CELOSIA.

*Amarantus, panicula flaccide, gracill, holosericea.* Sloane, v. 1, p. 142, t. 90, f. 2. *Erecta herbacea, caule nodoso, panicula longo assurgenti.* Browné, p. 358.

Browné says this plant is frequent about Kingston, rising to the height of two or three feet; the leaves of an oval form and entire; he describes it with male and female flowers separate. Swartz, on the contrary, never found it but with hermaphrodite flowers, and thinks it nearly allied to, if not a species of, *celosia*—(see Cockscomb, p. 205). He describes it thus: Root annual; stem upright, from a foot to a fathom in height, divided at top, round, striated, smooth, loose, jointed at the insertion of the branches; joints swelling; branches opposite, spreading a little. Leaves opposite, petioled, lanceolate, or ovate-lanceolate, acuminate, smooth. Panicles terminating, branched;

## HORTUS JAMAICENSIS.

branched; branches diffused, alternate, spreading; flowers in a sort of spike, on short peduncles, small, ovate, whitish; at the base of the flowers are extremely minute, spinning, yellowish, imbricate, scalelets. Calyx or corolla five cleft, with acute upright segments; filaments shorter than the corolla; germ roundish, style very short, trifid, stigmas reflex; the calyx instead of a capsule incloses a black shining seed. A white wool bursts out from among the scales after the flowering is past.—*Sr.* According to Sloane the stems are cornered, yellowish-green, hollow, smooth, needing support, but not twining, as big as a goose-quill, having a few joints, and at them opposite leaves, an inch and a half long, and half as broad near the round base, ending in a point, and of a yellowish-green colour.

IRON-GRASS—See BUTTON-WEED.

### IRON-SHRUB.

### SAUVAGESIA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Gruinales.*

GEN. CHAR.—Calyx a five-parted perianth, leaflets lanceolate, acute, concave, spreading, permanent; the corolla has five petals, blunt, equal, rhomb-ovate, length of the calyx; nectary five smaller leaflets, alternate with the petals, oblong, erect, surrounded by many shorter hairs; stamens five awl-shaped very short filaments, with oblong, acute, short, anthers; the pistil has an ovate germ, a simple style, the length of the stamens, and a simple blunt stigma; the pericarp is a capsule, ovate, acuminate, one-celled, three-valved at the top; seeds numerous, very small, fastened to the sutures in a longitudinal row. There is only one species, a native of Jamaica.

ERECTA. ERECT.

*Herbaceus minor foliis oblongis levissime crenatis, stipulis ciliatis, floribus singularibus ad alas.* Browne, p. 179, t. 12, f. 3.

This beautiful little plant rises generally in an oblique direction, and seldom shoots above ten or twelve inches from the root; the stalk is delicate, smooth, and round, casting a few slender branches on every side, without any certain order. Leaves small, oblong, smooth on the upper side, very lightly crenated, and disposed in an alternate but irregular order; they are on short footstalks, and adorned with remarkably ciliated ears or stipules on each side, at their insertions. The plant is rare: I found it between Mount Diablo and St. Ann's.—*Browne.* The peduncles are one-flowered; flowers white, without scent. It is easily distinguished by its ciliate stipules.

IRON-WOOD—See SAVIN-TREE and REDWOOD.

IRON-WORT—See WILD-HOPS.

No English Name.

ITEA.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Rhododendrea.*

GAT.



GEN. CHAR.—Calyx a one-leafed, five-cleft, upright, perianth; segments lanceolate, acute, permanent, coloured; the corolla has five petals, sessile, lanceolate, acuminate, spreading, deciduous; the stamens five awl-shaped filaments, upright, the length of the corolla, inserted into the base of the calyx, with roundish incumbent anthers; the pistil has an ovate-superior germ, a permanent cylindric style, the length of the stamens, and two blunt stigmas; the pericarp is an ovate capsule, longer than the calyx, mucronated by the style, two-celled, two-valved, many seeded; seeds very small, oblong, shining. There are two species, one of which is a native of Jamaica.

## CYRILLA.

Leaves lanceolate, entire, membranaceous.

This grows three feet in height; stem upright, somewhat branched, round, ash-coloured; branches alternate, or scattered, spreading, angular, rufous, smooth. Leaves alternate, bluntish, revolute, with the edges a little waved, one-nerved; the mid-rib marked with lines above, prominent underneath, smooth, paler underneath, dry, spreading, flat, permanent, three inches long, and an inch wide; petioles very short, cylindric below, flat above, reddish. Racemes very many, lateral at the base of the new shoots, one from each bud, on short peduncles, spreading, from four to six inches long. Flowers scattered, pedicelled, spreading, white, two or three lines in diameter; bracte linear, very sharp, white, withering, under the pedicels, than which it is scarcely longer; bracteole two-leaved, opposite, linear, sharp, pressed close, on the pedicel itself next the calyx, which is white; petals longer than the calyx; anthers two-celled; peltate, very pale violet; germ whitish, style short, compressed, scarcely bifid, shorter than the stamens; stigmas headed; capsule sitting on the calyx, resembling two united styles, by means of its double partitions.

## JUSTICIA BALSAM.

## JUSTICIA.

CL. 2, OR. 1.—*Diandria monogynia*. NAT. OR.—*Personata*.

This was so named in honour of James Justice, Esq. F.R.S. author of the British Gardeners Director.

GEN. CHAR.—Calyx a one-leafed perianth, very small, five-parted, acute, upright, narrow; corolla one-petaled, ringent, tube gibbous, border two-lipped, superior lip oblong-emarginate, inferior, of the same length, reflex, trifid; stamens two awl-shaped filaments, hid under the upper lip, with upright anthers, bifid at the base; the pistil has a top-shaped germ, a filiform style, the length and situation of the stamens, and a simple stigma; the pericarp is an oblong capsule, narrowed at the base, two-celled, two-valved; the partition opposite to the valves, gaping with an elastic claw; seeds roundish. Six species are natives of Jamaica.

## 1. ASSURGENS. ARISING.

*Flori cardinalis sive rapuntio affinis anomala, caule quadrato, flore coccineo, capsula pyramidalis*. Sloane, v. 1, p. 159. *Herbacea assurgens, ad alas alternas nodos et summitates florida; foliis paucioribus ovatis petiolis longis incidentibus*. Browne, p. 118, t. 2, f. 1.

Herbaceous.

Herbaceous; branches angular; leaves ovate-elliptic: spikes axillary and terminating, branched; flowers alternate; bractes linear; anthers parallel.

The root is short, thick, and divided into three or four long reddish branches. The stem square, green, jointed, slender, rising three or four feet, scarcely able to support itself; it shoots into a great number of opposite branches, growing gradually less as they ascend; the leaves are also opposite, two inches long, and one broad near the footstalk, which is two inches long; they are rough, and of a dirty green colour. The flowers are two-lipped, lips undivided, on axillary spikes, of a scarlet colour, three-quarters of an inch long. The seeds are round, flat, black, and have a defect in each. This beautiful plant is very common about the Ferry, and flowers generally in July and August.—*Sloane & Browne.*

2. PECTORALIS. PECTORAL.

*Foliis lanceolatis, floribus spicatis, calicibus duplicatis.*—*Browne*, p. 118.

Herbaceous, leaves lanceolate, petioled; spikes panicled; bractes minute, upper lip undivided; anthers binate.

This plant seldom rises more than ten or twelve inches in height. Leaves acuminate, two inches long; panicles terminating, dichotomous, slender; flowers numerous, red; sessile; bractes bristle-shaped; the whole plant has the smell of new hay, mixt with a refreshing aromatic scent; it is made a syrup of, which is thought of use in disorders of the breast. The bruised leaves are also good in wounds and cuts, whence the French call it *herbe à charpentier*. It is known by the name of *garden balsam*.

3. ARMATA. ARMED.

Shrubby; prickly; leaves oblong, emarginate, coriaceous, shining.—*Sw.*

4. ACICULARIS. NEEDLE-SHAPED.

Shrubby, diffused, spiny; spines bristle-shaped; flowers peduncled, axillary, solitary.—*Sw.*

5. HUMIFUSA. MOIST.

Stem herbaceous, decumbent; leaves ovate and cordate; spikes umbelled.—*Sw.*

6. NEMOROSA. WOODY.

Stem herbaceous, four-cornered, somewhat upright; leaves ovate-lanceolate; spikes ovate.—*Sw.*

This genus is nearly allied to *dianthera*—(see *Balsam Herb*, p. 40.) The following exotic species have been introduced: *Adhatoda*, or Malabar nut; *picta*, variegated *justicia*; *nitida*, shining-leaved; *Martinicensis*, Martinico; *Carthaginensis*, Carthaginian; and the *spigosa*, prickly. All the species are propagated from seeds and cuttings.

IVY.

HEDERA.

5. OR. 1.—*Pentandria monogynia.*

NAT. OR.—*Hederaceae.*

*Gen.*

GEN. CHAR.—Calyx has an involucre of a simple umbel, very small, many-toothed; a small five-toothed perianth; corolla five-petaled, oblong; stamens subulate filaments, with anthers trifid at the base; the pistil has a turbinate germ, and simple style and stigma; the pericarp is a globular five-seeded berry, surrounded by the calyx; seeds large, gibbous on one side, angular on the other. Swartz discovered two species in Jamaica.

1. PENDULA. PENDULOUS.

Leaves ovate-lanceolate, entire; peduncles very long, pendulous.

2. NUTANS. NODDING.

Leaves elliptic, coriaceous; umbels nodding, hemispherical.

KELP—See SEA-WEEDS.

KIDNEY-BEANS.

PHASEOLUS.

CL. 17, OR. 4.—*Diadelphia decandria*. NAT. OR.—*Papilionaceæ*.

GEN. CHAR.—See Black-Eyed Pea, p. 99.

VULGARIS. COMMON.

Stem twining; flowers racemed, in pairs; bractes smaller than the calyx; legumes pendulous.

This useful vegetable, of which there are numerous varieties, known by the name of *cockstones*, grows very plentifully in Jamaica. The stems are more or less twining, but in the dwarf species, principally cultivated, scarce at all so. Leaves ternate, acuminate, rounded at the base, rough, on long petioles. Flowers axillary, on twin racemes, or else on twin petioles; corolla white, yellow, purple, or red. There is a white nectariferous scale between the claw of the banner and the single stamen, bent upwards, and growing to the filament; besides this an obliquely bell-shaped, pellucid, striated, nectary surrounds the pedicel of the germ, within the connate filament.—Legume oblong, swelling a little at the seeds, when ripe one-celled. Seeds several, ovate or oblong, kidney-shaped, smooth, and shining; they vary exceedingly in shape and size, but particularly in colour, being white, black, blue, red, and variously spotted. Of this numerous family of plants the following are those most generally cultivated in Jamaica:

K k k

*Cockstones*

*Cockstones*.—The pods of which, in their young state, are served up by way of greens, under the name of *French beans*. When dry the seeds are used in soups, and are an excellent food for negroes.

*Calavances*, or *red bean*, and *black-betty*.—These are very productive, and may be gathered in six or seven weeks after sowing; the flowers of both are of a purple colour, but the bean of the former is red, that of the latter black. They are both wholesome food, of which negroes in general are very fond. They are erect plants, with slender pods, round, many-seeded. The former is described and figured by Sloane, v. 1, p. 183, t. 115, f. 2, 3.

The *Bonavist*.—This is a climbing plant, with loose terminal spikes, compressed pods, four-seeded, with a rough suture on both sides. This plant is said to thrive better than any of the others, and the seeds are considered wholesome and palatable. It grows luxuriantly among rocks, and in the driest soils. There is a white and a red variety. Both are figured by Sloane, t. 113, f. 1, 2, 3, 4.

*Cuckold's Increase*.—This plant resembles the *calavances* very much, both in the size and manner of its growth, and size and form of its pods. It is a good and productive pulse. This seems to be a species of *dolichos*, as does the bonavist; neither of their stamens are spirally twisted; flowers white, with a yellow tinge at the base of the banner.

*Jamaica Sugar-Bean*.—This is a scandent plant, with smooth compressed pods, three or four seeded. It is cultivated all over the island, and introduced as a green at every table, and a very excellent one it is; it indeed takes its name from its agreeable sweet flavour. It continues to bear through a considerable part of the year, if the vine is trained to run upon a stick or arbour.

*Broad Bean*.—This is a large plant, with large compressed pods, three or four seeded. The stalk is as big as one's finger, turning and winding on any thing seven or eight feet high. It is sometimes cultivated for covering arbours. The beans are very wholesome and agreeable, either in soup or as a green.—See Sloane, t. 111, f. 1.

*Lima Bean*.—This is perennial, and was long ago introduced into Jamaica, where it has thriven well, especially in the lowlands. This, in flavour and tenderness, far exceeds all the other kinds, but not so frequently to be met with. It requires a rich soil, and continues to bear, if trained upon an arbour, for four or five years successively, but does not produce so frequently as the other kinds.

See BLACK-EYED PEA and HORSE BEANS.

KLEINIA—See HEMP AGRIMONY.

KNOTTED GRASS—See WORM GRASS.

No English Name.

KYLINGIA.

CL. 3, OR. 1.—*Triandria monogynia*.

NAT. OR.—*Gramina*.

This was so named from Petrus Kylling, a Dane.

GEN. CHAR.—Calyx an ovate oblong ament, imbricated, scales oblong; glume unequal, compressed, bivalve; valves lanceolate, channelled; acute, much shorter than the corolla; the one shorter than the other; corolla a glume, longer than the calyx, compressed; bivalve; valves keeled, unequal, divaricated at the tips, of which one is larger, lanceolate, very sharp, complicated, embracing the margin of

of the other; the other shorter, narrower; the stamens are three awl-shaped, flat filaments, with linear, erect, anthers; the pistil has an ob-ovate germ, flattened, gibbous on one edge; style filiform; stigmas two or three, capillary; there is no pericarp, the glumes of the corolla preserving the seed till ripe; seed oblong, three-sided, destitute of villi. Three species are natives of Jamaica.

1. MONOCEPHALA. ONE-HEADED.

*Minimus pratensis paniculo stricto singulari, foliis involucri ternis.*—  
Browne, p. 127.

Culm filiform, three-sided; head globular sessile; involucre three-leaved, very long.

The stem rises a foot high, three-sided, strict, grooved; leaves the length of the culm, linear, keeled, even, sheathing at the base. Involucre three-leaved; upper leaflet upright, long; lateral ones horizontal; one of them three or four times shorter than the rest, ciliate at the edge. Head glomerate, roundish; spikelets very many, ovate, acuminate, compressed, green. Glumes one-flowered, only bivalve; valves awnless, scarcely unequal, one a little larger, ovate-acute, keeled; filaments one, two, or three, ovate, thickish; anthers linear, upright, not versatile, yellow; germ roundish, compressed; style cloven in the middle; stigmas simple, reflex; seed compressed; involved in the permanent glume.—*Sw.*

Browne calls this the small *cyperus*, with a simple head; found in the lowlands, and seldom rising more than four or five inches from the root.

2. TRICEPS. THREE-HEADED.

*Gramen cyperoides minus, spica compacta subrotunda viridi, radice odorata.* Sloane, v. 1, p. 119, t. 78, f. 2. *Humilior foliis involucri albo longitudinaliter, fasciatis.* Browne, p. 128.

Heads terminating in threes, or thereabouts, glomerate, sessile.

Culm half a foot high, commonly decumbent at the base, naked, three-cornered; leaves radical, shorter than the culm, sheathing, linear, keeled, smooth; involucre three-leaved, terminating; leaflets linear-lanceolate, keeled, minutely serrate; one superior, short. Heads three or four, sessile, one in the middle, oblong, larger.—Spikelets clustered, not imbricate; glumes two, the outer ones very minute; two inner larger, one-flowered; valves equal, ovate, acute, keeled, white at the edge; two white bristles within the keel of the valves; filaments three, very short, with yellow anthers; germ compressed, style bifid, stigmas reflex; seed compressed, shining. It is frequent in moist meadows in Jamaica.—*Sw.* Browne calls it the variegated grassy *cyperus*. Sloane says the under parts of the leaves are reddish, and that the root is very odoriferous.

3. FILIFORMIS. FILIFORM.

Umbel terminating, simple; spikes sessile and peduncled, ovate; spikelets ovate-acute; involucre three-leaved, partial none.

## LACE-BARK-TREE.

## DAPHNE.

CL. 8, OR. 1.—*Octandria monogynia*. NAT. OR.—*Veprucæ*.

GEN. CHAR.—No calyx; corolla one-petaled, funnel-form, withering, including the stamens; tube cylindric, imperforate, longer than the border; border four-cleft, divisions ovate, acute, flat, spreading; the stamens eight filaments, short, inserted into the tube; the alternate ones lower; anthers roundish, erect, two-celled; the pistil has an ovate germ, a very short style, and a headed, flat-depressed stigma; the pericarp is a roundish one-celled berry; seed single, roundish fleshy. Three species of this genus are natives of Jamaica.

## 1. LAGETTO.

*Laurifolia arbor folio latiore longo mucronato lavi splendenti, cortice interiore in telus plurimas linearum æmulas extensili*. Sloane, v. 2, p. 22, t. 168, f. 1, 2, 3, & t. 169, f. 1. *Foliis majoribus, cordatis, nitidis, petiolis sempipollicaribus incidentibus*. Browne, p. 371, t. 31, f. 5.

Spikes paniced, terminating; leaves ovate-acute.

It has a laurel-like leaf, and therefore called by Sloane *arbor laurifolia*. The wood is white; leaves four inches long, and two and a half broad near the base, of a yellowish-green colour, shining, thick, and smooth. It is common in the woods of Vere, Clarendon, and St. Elizabeth. The inner bark is of a fine texture, very tough, and divisible into a number of thin filamentous *lamina*, which, being soaked in water, may be drawn out by the fingers into a *reticulum*, resembling fine lace so nearly as to be scarcely distinguished from it. The ladies of the island are extremely dexterous in making caps, ruffles, and complete suits of lace with it; in order to bleach it, after being drawn out as much as it will bear, they expose it stretched to the sunshine, and sprinkle it frequently with water. It bears washing extremely well, with common soap, or the curatœ soap, and acquires a degree of whiteness equal to the best artificial lace. There is no doubt but very fine clothes might be made with it, and perhaps paper. The wild negroes have made apparel with it of a very durable nature. The common use to which it is at present applied is rope-making. The Spaniards are said to work it into cables, and the Indians employ it in a variety of different fabrics. It may, perhaps, be of service to Great Britain as a manufacturing nation, that the inhabitants of these colonies are very seldom disposed to improve what nature offers, or apply many productions here to the obvious uses for which they are intended. Necessity, that great spur to such improvement, is wanting to stimulate; or otherwise they would soon find out methods of turning them to account.—*Long*. Sloane relates that Charles II. had a cravat made of the bark of this tree, which was presented to him by Sir Thomas Lynch.

The lace-bark-tree grows on high rocky hills twenty feet high. The trunks straight, the wood soft, the bark thick, and may be separated into twenty or thirty *lamina*, white and fine, like gauze.

It has the sensible qualities of mezereon, but in a greater degree. A drachm of it, to two pounds of sarsaparilla decoction, is useful in confirmed lues, chronic rheumatism, and pains of the bones from lues or the yaws.—*Wright*.

## 2. TINIFOLIA.

## 2. TINIFOLIA. TINUS-LEAVED.

Racemes compound, erect; flowers terminating, crowded; leaves oblong.

This rises with a woody stalk to the height of twenty feet, dividing into many branches, which are covered with a grey rough bark; at the extremity of the branches are produced the peduncles, which are unequal in length, and divide into several smaller, each sustaining a cluster of small white flowers, which are collected into a head or small umbel, having one general involucre; they are male and hermaphrodite on different trees. The latter are succeeded by oval berries, not quite so large as those of the common bay. The leaves are about two inches long, and one inch broad, rounded at the top and entire, on very short footstalks.

## 3. OCCIDENTALIS. WESTERN.

Peduncles axillary; flowers terminating, in umbellets, dioecious; leaves alternate, lanceolate, smooth.—Sw.

## No English Name.

## LACISTEMA.

CL. 1, OR. 2.—*Monandria digynia*. NAT. OR.—

GEN. CHAR.—Calyx a common ament, imbricated on all sides, columnar; scales one-flowered, ovate, concave; two small linear squamules being placed at the sides beneath the corolla within the scale; corolla one-petaled, four-parted, no tube; divisions lanceolate, sharp, sub-erect; nectary one-leafed, rotate, entire, smaller than the corolla, concave; the stamens are single filaments, situated in the middle of the nectary with the germ, upright, incurved above the middle over the germ, bifid at the top; anthers minute, roundish; the pistil has a globose germ; two very short styles, recurved; stigmas simple; the pericarp is a footstalked berry, ob-ovate, oblong, one-celled; seed single, solitary. There is only one species, which was discovered in this island by Swartz.

## MYRICOIDES. MYRICA-LIKE.

Stem arborescent; branches round, somewhat knotty, ash-coloured, naked, smoothish, spreading, branched; branchlets greenish, leafy, smooth, somewhat wrinkled, with very minute transverse veins, quite entire, four inches long, spreading, with a longitudinal waving nerve; petioles short, flattish, channelled. Spikes only two or three lines in length, aggregate, round, straight, sessile, partly from the axils of the leaves, partly lateral from the scars of the branches.—Sw.

## LANCEWOOD.

## UVARIA.

CL. 13, OR. 7.—*Polyandria polygynia*. NAT. OR.—*Coadunata*.

This has received its generic name from the figure of the fruit, being like a bunch of grapes.

GEN. CHAR.—Calyx a three-leaved perianth, flat; leaflets ovate, acute, permanent; the corolla has six petals, lanceolate, sessile, spreading, longer than the calyx; the

the stamens have no filaments; anthers numerous, truncate, oblong, covering the germ on which they are placed; the pistil has an ovate germ, numerous styles; the length of the anthers, terminating the head; stigmas obtuse; the pericarp numerous berries, distinct, globular, peduncled, fastened to an oblong receptacle; seeds numerous.

LANCEOLATA. LANCED.

*Foliis ovatis glabris utrinque acuminatis, floribus umbellulatis, umbellulis sparsis.* Browne, p. 370.

Leaves lanceolate, quite entire; flowers axillary, solitary; branches wand-like.

Neither the fructification, nor other parts of this tree, of which there are two kinds, seem hitherto accurately described. Browne places it among those trees, whose flowers he had not seen. The calyx is a perianth composed of three obtuse-pointed, broad-based, or *semicircular-like* leaves, which are patent, short, and deciduous: the corolla has six petals, equal, ovate, concave, reflected, thick, and falling as soon almost as open; they are more than four times the length of the cup: the stamens are from fifteen to twenty equal erect filaments, bent or arched upward, thick, adhering to a circular gland; the anthers oblong, and adherent to the exterior sides of the stamens, seeming double; the germs are oblong, erect, ten or twelve in number, somewhat shorter than the stamens, which are shorter than the petals. The pericarp is a drape, containing one seed or stone, of an ovate form, whose proper covering is inseparable from the kernel, somewhat of a ligneous texture, many productions of which penetrate into the kernel, as may be observed in the seeds of all the species of *annona*, to which genus this approaches nearly. The fruit grew one, two, three, or four, upon the receptacle, never more than four, and that but seldom, for the receptacle not increasing in proportion to the growth of the germs, the latter push one another off; they are each pedunculated, and fixed to an oblong receptacle. The berries have a longitudinal furrow running down one side. There are two species, natives of Jamaica.

1. ALBA. WHITE.

Flowers terminating.

The leaves of this are alternate, of an oblong-ovate form, acuminate at each extremity, smooth and glossy on both sides, of a remarkably deep green above, and somewhat paler beneath, placed upon black, short arcuated pedicels. The corolla is white, the fruit reniform, carnosé, somewhat compressed, rostrated at its origin, splitting open on its gibbous side, and displaying a crimson unctuous pulp, in which are divers transverse cells, each containing one kidney-shaped seed. This fruit is eaten by negroes and others, when roasted, the pulp being reckoned very nutritive, and is known by the name of *white-lancewood berries*. From the flexibility of its smaller branches, they are often used, as birch is in England, for the punishment of delinquents.

2. NIGRA. BLACK.

Flowers lateral.

The leaves are entire in their margins, which are somewhat reflected; from a pale green mid-rib, conspicuous below, arise a few alternate and oblique veins, which are gradually lost in the margins. The ripe fruit are of a deep shining, blackish-purple colour, acuminate at the extremity. The flowers seem to be placed at the defoliated parts



parts of the smaller branches, one at a place, between the leaves, not axillary. Both these species are considered good timber, especially where elasticity is required; but they seldom grow to any considerable size. They are used for making shafts for light carriages. The negroes make lances of the wood, whence the name; and from its toughness it makes good rods. Pigeons feed on the fruit.

## No English Name.

## LAUGERIA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Rubiaceæ*.

This was so named from Robert Laugier, professor of chemistry and botany at Vienna.

GEN. CHAR.—Calyx a one-leafed perianth, tubular, superior, with unequal mouth, small, deciduous; corolla one-petaled, salver-form, tube very long, border five-cleft, divisions ob-ovate; the stamens are five very short filaments, with linear anthers, long, beneath the throat; the pistil has a sub-ovate inferior germ, a filiform style, rather longer than the tube, and a headed stigma; the pericarp is a roundish drupe, umbilicated with a point; seed a two or three-celled furrowed nut. Two species were discovered in Jamaica by Swartz.

## 1. LUCIDA. SHINING.

Leaves oblong, blunt, entire, membranaceous, shining; racemes dichotomous; drupes with two-celled nuts.

Branches round, smooth, covered with an ash-coloured bark, scarred at top with the fallen leaves. Leaves in clusters at the ends of the branchlets, petioled, opposite, two or three inches long, very smooth and even, nerved, quite entire; racemes from the axils of the terminating leaves, solitary, opposite, the length of the leaves, bifid, reflex at the tip, almost as in *tournefortia*. Flowers on short pedicels, distant, all directed the same way, on the inner side of the peduncles; calyxes small, smooth, five-cleft; corolla smooth.—*Vahl*.

## 2. TOMENTOSA. DOWNY.

Leaves ovate-acute, entire, tomentose underneath; racemes dichotomous; drupes with a two-celled nut.—*Sw*.

LAUREL, WEST INDIA—*See* WEST INDIA LAUREL.

LAUREL TREES—*See* BAY TREES.

## LAVENDER.

## LAVENDULA.

CL. 14, OR. 1.—*Didynamia gymnospermia*. NAT. OR.—*Verticillatæ*.

GEN. CHAR.—Calyx a one-leafed perianth, ovate, mouth obscurely toothed, short, permanent, supported by a bracte; corolla one-petaled, ringent, resupine; stamens within the tube; anthers small; the pistil has a four-parted germ, a filiform style.

style, and two-lobed stigma; there is no pericarp, calyx converging with the mouth, and guarding the seed; seeds four, ob-ovate.

SPICA. SPIKED.

Leaves sessile, lanceolate-linear, rolled back at the edge; spike interrupted, naked.

Common lavender has a perennial, thick woody root; stem shrubby, branched, frequently rising five or six feet high, four-cornered, acute angled, tomentose; leaves numerous, blunt, hoary, the upper ones sessile, the lower petioled. The flowers are produced in terminating spikes, on long peduncles; the spikes are composed of interrupted whorls, in which the flowers are from six to ten, the lower whorls more remote. The common colour of the corolla is blue, but it varies with white flowers. The whole plant is covered with a down composed of forked hairs. This plant has long been celebrated for its virtues, and fine aromatic scent. Whether used externally or internally, Dr. Cullen thought it a powerful stimulant to the nervous system; it is also in esteem for putting among clothes. The flowers are gathered by cutting the spikes close in a dry day, and tying them in small bunches for use. They are given in palsies, vertigos, lethargies, tremors, and suppression of menstrua. The compound spirit distilled from them is celebrated for destroying the *pediculi unguinales*, and other cutaneous insects. If soft spongy paper, dipped in this oil, either alone, or mixed with oil of almonds, be applied at night to the parts infected, the insects will certainly, says Geoffroy, be all found dead in the morning. The lavender plant has been long and generally cultivated in the gardens of Jamaica; and the following species have also been introduced:—*Stoechas*, or French lavender; the *dentata*, or tooth-leaved; and the *multifida*, or Canary lavender. All the species are easily propagated by slips or cuttings.

No English Name.

LAVENIA.

CL. 19, OR. 1.—*Syngenesia polygamia equalis*. NAT. OR.—*Compositae*.

GEN. CHAR.—Calyx common, sub-imbricate; scales ten to fourteen, lanceolate, equal, permanent; corolla compound, uniform; stamens five filiform filaments, shorter than the tube; anthers oblong, flattish, twin, slightly connate; the pistil has an oblong germ, a filiform two-parted style, and a flattish clubbed stigma; there is no pericarp; the calyx permanent, spreading; seeds sub-clavate, a little wrinkled, viscid with glandules; down with three awl-shaped awns, glandulose at the base; receptacle naked. One species is a native of Jamaica.

DECUMBENS. DECUMBENT.

*Chrysanthemum sylvaticum repens minus, chamædryos folio, flore luteo nudo, semine rostrato*. Sloane, v. 1, p. 262, t. 155, f. 2.—*Herbaceum, erectum; foliis cordatis, crenatis, oppositis; capitulis paucioribus, remotis, terminalibus*. Browne, p. 316.

Stem simple, decumbent; leaves sub-cordate, bluntly serrate.

Stem herbaceous; leaves opposite, petioled, cordate, sometimes, but seldom, ovate, blunt, bluntly serrate; peduncles terminating, long, usually bifid, and two-flowered; calyx

calyx many-leaved, simple, ovate; pistil longer than the corollet; seeds terminated by two coloured bristles. It has the appearance of a *verbesina*.—*Linneus*. Sloane says this plant lays usually along the surface of the earth, jointed, nine inches long.—*Browne* made it a species of *tanacetum*, or tansey, and it is the *cotula verbesina* of *Linneus*, transferred to this genus by *Swartz*.

LEAD-WORT—*See* TOOTHWORT.

LEEKS—*See* ESCHALOT.

No English Name.

LEERSTIA.

CL. 3, OR. 2.—*Triandria digynia*. NAT. OR.—*Gramina*.

So named from John Daniel Leers, author of a botanical work.

GEN. CHAR.—Calyx none; corolla a bivalve glume; valves navicular, concave, compressed, ciliate, prickly on the back, nearly equal; the exterior larger, oblong, mucronated; the interior twice as narrow, linear, acute; nectary two-leaved; leaflets lanceolate, acute; stamens from one to six capillary filaments, with oblong anthers; the pistil has an ovate compressed germ, two capillary short styles, with feathered stigmas; there is no pericarp, the corolla includes the seed, which is single, ob-ovate, compressed. Two species are natives of Jamaica.

1. MONANDRA. ONE-STAMENED.

Panicle spreading; spikes remote, loose; spikelets directed all one way, roundish, one-stamened; glumes even.—*Sw*.

2. HEXANDRA. SIX-STAMENED.

Panicle spreading; spikelets alternate, six-stamened; glumes almost even.—*Sw*.

No English Name.

LEGNOTIS.

CL. 13, OR. 1.—*Polyandria monogynia*. NAT. OR.—

\*This name is derived from a Greek word signifying fringed, the petals being fringed.

GEN. CHAR.—Calyx a one-leafed perianth, bell-shaped, half four or five-cleft, permanent; corolla four or five petaled, longer than the calyx, border ovate, fringed; claws slender, inserted into the receptacle; stamens from sixteen to twenty filaments, or more, with oblong upright anthers; the pistil has a roundish germ, a cylindric style, and headed stigma; the pericarp is a large three-cornered capsule, three-celled, three-valved, elastic; the seed solitary, on one side convex, on the other cornered. One species is a native of Jamaica.

ELLIPTICA. ELLIPTIC.

Leaves elliptic; flowers pedicelled.—*Sw*.

LEMON GRASS.

*Genus Unknown.*

This plant, which was introduced about fifteen years ago, has been pretty generally cultivated, and has thriven well, in most parts of Jamaica, but has never been observed to produce any flowers or seed, although carefully examined for several years running. It is thought to approach nearly to camel's hay (*andropogon schænanthus*). The root is strong, woody, and tastes something like lemon peel, but more bitter: it is about half an inch in diameter, and several inches long, woody, and full of circular protuberances or ledges, about a quarter of an inch distant from each other, of a yellow colour, and sending forth at its end and sides many white fibres, and fresh shoots, which propagate the plant very fast, covering a large surface of ground, the old leaves decaying, while the new leaves shoot successively from the centre of the stem, which is round, and without joints, entirely formed of the stalks of the leaves circularly embracing each other, like the *laminae* of a cabbage-tree. The leaves are frequently from three to four feet in length, and three quarters of an inch broad, striated, and resembling Guinea grass, as well as the plant generally, but they are of a harsher nature, and more coarse appearance, and no animal will eat them; to the touch they are rough and hard. These leaves have a very agreeable lemon-like smell, and the decoction of them, as well as of the root, is a very pleasant and cooling drink in fevers, which has also been found very beneficial in nervous head-aches: they may be dried and kept for use for a great length of time, as they have been found not to lose their virtues after a voyage to England.

LEMON TREE—See LIME and LEMON TREES.

LETTUCE.

LACTUCA.

CL. 19, OR. 1.—*Syngenesia polygamia equalis.* NAT. OR.—*Compositæ.*

This name is derived from *lacte*, on account of the milkiness of the plant.

GEN. CHAR.—Calyx common, imbricated; cylindrical, with a membranaceous margin; corolla imbricated, uniform; stamens five filaments, with cylindric anthers; the pistil has a sub-ovate germ, a filiform style, and two reflex stigmas; there is no pericarp, calyx converging, ovate cylindric; seeds solitary, ovate acuminate, even, compressed; down capillary, on a long stipe, attenuated below; receptacle naked.

SATIVA.

Leaves rounded; stem-leaves cordate; stem corymbed.

This useful vegetable thrives well in Jamaica, in several of its varieties. This has long been celebrated for its cooling and wholesome properties, and, as it contains a quantity of a milky juice, of an opiate nature, it promotes sleep; which it probably effects by abating heat, and relaxing the fibres. Lettuce is also in some degree laxative and aperient, and proper in hot bilious dispositions. The seeds are of an emollient nature.

LICCA

LICCA-TREE.

SAPINDUS.

CL. 8, OR. 3.—*Octundria trigynia*. NAT. OR.—*Trihilata*.

GEN. CHAR.—Calyx a four-leaved perianth, spreading; leaflets ob-ovate, almost equal, flat, spreading, coloured, deciduous; two of them exterior; the corolla has four ovate clawed petals; two of them more approximating; nectary four oblong, concave, erect, leaflets, inserted into the base of the petals; glands four, roundish, also inserted at the base of the petals; stamens eight filaments, with cordate, erect anthers; the pistil a triangular germ, with three short styles, and simple obtuse stigmas; pericarp three capsules, fleshy, globular, connate, inflated; seed a globular nut.

SPINOSUS. THORNY.

*Fruticosus caudice et ramis spinosissimis, foliis ovatis pinnatis.*—  
Browne, p. 207, t. 20, f. 2.

Leaves abruptly pinnate; stem very thorny.

Dr. Browne, who has given a pretty good figure of this plant, both in leaves and parts of fructification, has surely referred it to a wrong genus, as it approaches more nearly to the *amyris*, and in some places the smaller *lignum rorum*. The sapindus has four or five petals in the corolla, and eight stamens; the licca tree only three petals and three stamens; the following are the characters of the latter: Calyx small, one-leaved, three-dented; the corolla has three petals, which are oblong-ovate, concave, erect; stamens three erect subulated filaments, longer than the petals, with cordate anthers; the pistil has three ovate germs, an erect style, shorter than the corolla, and a capitate stigma; the pericarp a spherical capsule, one-celled, with a lateral suture, opening from the apex to the base; one-seeded. Some trees have been found with female flowers only, the cup, petals, germ, and stigma, agreeing exactly with the above, but destitute of stamens and anthers; two of the germs always prove abortive. In the parts of fructification it agrees partly with the *amyris*, viz. in the form of the calyx and corolla, but in its fruit it resembles *fagara*; yet in the number of its parts neither. The blossoms of this tree are very fragrant; it blooms in the spring.

I found this shrub in the borough in St. James's: it is very remarkable for the prickliness of its trunk, which seldom exceeds seven or eight feet in height, or two or three inches in diameter. The fruit of this tree is much smaller than that of the other species (see Soapberry-Tree); and though the embryos are always trilocular, as in that, no more than one of the cells or seeds ever grows to perfection; the capsulae are, however, marked with longitudinal sutures, that run down between the two abortive embryos, which have been formed by the laceration of the style in the growth of one of the locuments; for there is no more than one style in any of the flowers of these species. —Browne.

See SOAPBERRY.

LIGNUM RORUM—See SAVIN TREE.

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LIGNUM

## LIGNUM VITÆ OR POCKWOOD TREE.

## GUAIAACUM.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Gruinales.*This generic name is derived from the Indian *om hoaxacan*.

GEN. CHAR.—Calyx a five-leaved perianth; leaflets ovate-oblong, concave, obtuse, spreading, deciduous; the two outer ones a little smaller; the corolla has five petals, roundish-obovate, obtuse, concave, spreading, thrice the length of the calyx, ending in short claws, inserted into the receptacle; the stamens are subulate filaments, broader at the base, upright, shorter than the corolla, inserted into the receptacle; anthers deciduous, oblong, finally recurved; the pistil has a germ broader above, angular, pedicelled; a subulate style, equal in length to the stamens; and a simple acute stigma; the pericarp two to five capsules, on very short pedicels, compressed, membranaceous, covered with a pulpy rind, gibbous on the outside, united on the inside, separating when ripe, gaping; seeds solitary, bony, oblong. One species is a native of Jamaica.

OFFICINALE. OFFICINAL.

*Pruno vel evonymo affinis arbor*, &c. Sloane, v. 2, p. 133, t. 222, f. 3, 4, 5, 6. *Foliis fere impetiolatis, bijugatis, obovatis et leniter radiatis; pinnis et ramulis dichotomis.* Browne, p. 225.

Leaflets two pairs, obtuse.

Leaves pinnate; leaflets two pairs, elliptic, sessile, entire, veined, shining. Peduncles terminating, round, shorter than the petioles, one-flowered; calycine leaflets ovate, convex, pubescent; petals ovate, entire; filaments ten, contiguous at the base; anthers incumbent, bifid at the base, yellow; germ ob-cordate, compressed; style permanent (seeming double); capsule ob-cordate, angular, on a short pedicel, five-cornered, with very narrow winged ribs on the round back of the angles, succulent, smooth, ferruginous or bright yellow, from two to five-celled, (five seeds sometimes in each cell). Partitions quite simple, membranaceous, fixed to the middle of the cover. Seeds large, thicker and blunt above, attenuated below, convex on one side, angular on the other, rufescent. Two or three cells are frequently abortive, but the vestiges of them remain. The rind of the capsule is continuous, and the partitions indivisible.

This tree grows in great abundance on the south side of Jamaica, but is seldom or ever found on the north. It is an ever green, of a dark gloomy cast, which continues its verdure through the driest seasons. It grows frequently to a very considerable size, forty feet high, and fifteen to eighteen inches in diameter, but slowly, requiring many years to bring it to perfection. The roots are thick in proportion to the growth of the tree, and run a great way into the ground, contrary to the usual growth of timber trees, which generally shoot the largest prongs of their roots in a horizontal direction. The bark is thick, smooth, brownish, and brittle. The wood is firm, solid, and ponderous, appearing very resinous, of a blackish-yellow colour within, and of a hot aromatic taste; it is cross-grained, the strata running obliquely into one another in the form of an X. As timber it answers where strength and duration is required; it is so heavy as to sink in water; it takes a fine polish, and is sometimes marbled with different colours. It is so hard as often to break the tools employed upon it, and is of great use for making wheels and cogs for mills, blocks for ships, bowls, mortars, and other utensils: it

is also in great demand for various articles of turnery ware. But however valuable the timber of this tree, it is much more esteemed on account of the medicinal virtues of its gum, bark, flowers, and leaves. The wood has little or no smell, except when heated, or while rasping, and then a slight aromatic one is perceived. When chewed, it impresses a mild acrimony, biting the palate and fauces. All parts of the tree have an acrid disagreeable taste, and are more or less purgative. Its pungency resides in its resinous matter, which it gives out in some degree to water by boiling, but spirit extracts it wholly. In the choice of this wood those pieces should be preferred which are freshest, largest, most ponderous, and of the darkest colour; and the best method is to rasp them as wanted, for the finer parts are apt to exhale when the raspings or chips are kept a while. The fresh bark opens the body, and is deemed a sweetener of the blood. The pulp of the berries purges and vomits very violently, three or four of them are a dose. The flowers are also made into a laxative syrup, resembling syrup of violets. The foliage of the tree is of a very detersive nature, and frequently used to scour and whiten floors, which it performs much better than soap; the infusion of them is also used to wash painted linens and other stained garments, which it is said to do very effectually, without diminishing the lustre of the dyes.

The gum is obtained by jagging the body of the tree. It exudes copiously from the wounds, though gradually, and, when a quantity is found accumulated on the wounded trees, hardened by exposure to the weather, it is gathered and packed in small kegs for exportation. The gum may also be obtained in the following manner: The trunk and larger limbs being sawn into billets of about three feet long, an augre hole is bored lengthways in each, and one end of the billet so placed on a fire, that a vessel may receive the melted resin which runs through the hole as the wood burns; the gum may also be obtained in small quantities, by boiling chips or sawings of the wood in water and common salt, when the resin swims at the top, and may be skimmed off. This resin is of a friable texture, of a deep greenish colour, and sometimes has a reddish hue; it has a pungent acrid taste, but little or no smell, unless heated. The gum frequently exudes spontaneously from the bark, which is called the native gum, and of a bright semi-pellucid appearance, and much purer than the other. The guaiacum gum has been suspected sometimes to be sophisticated with the manchioneal-tree gum, to which it bears some similitude; but it is easily distinguished by dissolving a little in spirits, to which the true gum imparts a whitish tinge, but the manchioneal gives it a greenish cast: and this is still farther distinguished by pouring a little of the same tincture into water, which takes, from the guaiacum, almost immediately the complexion of milk. In choosing the resin, those pieces which have chips of the bark adhering to them should be preferred, and that easily separate by a quick blow.

Guaiacum was first introduced into Europe for the venereal disease; and appears to have been used in Spain so early as 1508. The great success attending its administration, before the proper use of mercury was known, brought it into such repute, that it is said to have been sold for seven old crowns a pound. It did not, however, continue to maintain its reputation; but was found generally to fail when the disease was deep-rooted, and was at length superceded by mercury, to which it now only serves occasionally as an adjuvant in the *decoctum lignorum*, of which guaiacum is the chief ingredient.

The general virtues of guaiacum are those of a warm stimulating medicine; strengthening the stomach and other viscera, and remarkably promoting the urinary and cuticular discharges; hence, in cutaneous defecations, and other disorders proceeding from

from obstructions of the excretory glands, and where sluggish serous humours abound, they are eminently useful; rheumatic and other pains have often been relieved by them. They are also laxative. The resin is the most active of these drugs, and the efficacy of the others depends upon the quantity of this part contained in them. The resin is extracted from the wood in part by watery liquors, but much more perfectly by spirituous ones. The watery extract of this wood, kept in the shops, proves not only less in quantity, but considerably weaker than one made with spirit. This last extract is of the same quality with the native resin, and differs only in being purer.—The gum or extracts are given from a few grains to a scruple, or half a drachm, which last dose proves for the most part considerably purgative. The officinal preparations of guaiacum are, an extract of the wood, a solution of the gum in rectified spirits of wine, and a solution in volatile spirit, and an empyreumatic oil distilled from the wood. The resin, dissolved in rum,\* or combined with water, by means of mucilage or the yolk of an egg, or in form of the volatile tincture or elixir, is much employed in gout and chronic rheumatism. The tincture or elixir has been given to the extent of half an ounce twice a day, and is sometimes usefully combined with laudanum. Dr. Browne observes, that the tincture has been sometimes administered with success, as well as the powder itself, in obstinate intermittent and remittent fevers; in which case they commonly procure a few stools, as well as promote a general discharge from the skin. Grainger says two or three of the pods, infused in warm water, often give a stool; a larger number in the same way act as an emetic, but is too surly. Barham says the fruit is very purging, and for use excels the bark or wood, and that he has cured the venereal diseases and yaws with the fruit, without salivation.

The following recipes, in which this valuable gum forms a principal ingredient, have been recommended:

*For the gout.*—One and a half ounce of lignum vitæ gum, half an ounce of powdered salt nitre, dissolved with a spoonful of spring water, to be put into one pint of brandy or old rum. Put it into the sun for three days, shaking it often.

*For the rheumatism.*—Take two ounces of lignum vitæ gum; two ounces of sulphur; and two ounces of mustard seed bruised, all to be mixed in a quart of old proof rum, taking half a wine-glass full, filled up with water, morning and evening, with a pint of warm sarsaparilla drink each time.

*For the gout or rheumatism.*—Gum guaiacum six ounces; balsam capivi two ounces; oil sassafras four scruples; balsam Peru one ounce; salt of tartar twenty-four grains. Mix the whole in sixteen ounces of spirits of wine. Twenty-five drops of this mixture to be taken in a glass of wine every morning, fasting, and in the evening. The dose to be increased five drops every day until it amounts to forty, which quantity is to be taken while the patient feels any pain.

*For the yaws.*—To a pint of good rum put fifty blue nickers, and one ounce of gum guaiacum; let the bottle be put in the sun three days, shaking it frequently, then add one pint of water. The patient to take a wine-glass full every morning and evening.

*Another for the yaws.*—Take one quart of brandy, and dissolve in it sixteen grains of corrosive sublimate, then add two ounces and a half of powdered gum guaiac, and six drachms of the species of Edinburgh treacle. Let the ingredients be put in a large bottle, well stopped, which is to be exposed in the sun, and frequently shaken, until the

\* This applied to a fresh wound is equally beneficial, and serves every purpose of Turlington's balsam.



the gum guaiac is perfectly dissolved. To a grown person give one table-spoonful, shaking the bottle, out of a little sarsaparilla decoction, drinking afterwards a pint of the same decoction, lukewarm, in bed, and let the same be repeated two or three hours, before the patient gets up in the morning. This course, continued for six weeks, will carry off the disorder from the skin, but, to eradicate it perfectly, it should be continued for six weeks longer. The quantity of the medicine is to be proportioned according to the age of the patient.

*For the venereal.*—Of all the preparations of mercury, the corrosive sublimate appears to me to be the best for curing inveterate venereal or yawy diseases, especially when accompanied with such medicines as promote its natural tendency to the skin.—Of this sort is guaiacum and sarsaparilla. I have found the following formula the best: Gum guaiacum ten drachms; Virginia snake-root three drachms; pimenta two drachms; opium one drachm; corrosive sublimate half a drachm; proof spirits two pounds. To be mixed and digested for three days, and then strained. Two tea-spoonfuls of this tincture, given in half a pint of sarsaparilla decoction, twice a day, will, in general, remove every symptom of ulcers or yaws in four or five weeks.—*H. Wright.*

*For dropsy.*—The patient must plunge into the coldest water, early every morning, and walk afterwards; taking a large tea-spoonful of strong tincture of lignum vitæ gum, in a wine-glass of water, before breakfast, dinner, and supper.

*For pains of the heart.*—As much gum guaiacum, finely powdered, as will lay on the point of a table knife, taken in syrup, eases pain of the heart.

*For constipation of the bowels.*—A remarkable instance of the efficacy of lignum vitæ, in removing a constipation of the bowels, of seventeen days continuance, in the dry belly-ache, deserves to be generally known: Two drachms (to the best of my recollection) of the powdered gum, in a wine-glass of brandy, was, in this case, taken in the forenoon; which so powerfully stimulated the debilitated system, that, before night, the collected forces were discharged at once, and the patient recovered.—*S. Felsted.*

LIGNUM VITÆ, BASTARD.

POLYGALA.

CL. 17, OR. 3.—*Diadelphia octandra.* NAT. OR.—*Lomentaceæ.*

This generic name is derived from two Greek words, signifying much milk, some of the species being supposed to make cows yield much milk.

GEN. CHAR.—Calyx five-leaved, with two of the leaves shaped like wings, and coloured; legume ob-cordate, two celled. Two species are natives of Jamaica, whose characters are described at length below.

I. DIVERSIFOLIA. DIVERS-LEAVED.

*Geniste affinis anonyma arbor, flore coluteæ, buri folio:* Sloane, v. 2, p. 32, t. 170, f. 2. *Fruticosa; foliis glabris ovatis; capsulis subrotundis, compressis, emarginatis; racemis minoribus, laxis, alaribus.* Browne, p. 287, t. 5, f. 3.

Flowers in racemes; stem arboreous; older leaves oblong-ovate, younger sub-ovate.

This is a small tree, with loose rod-like branches, sub-divided, even, round.—Leaves alternate, elliptic, acuminate, blunt at the tip, entire, smooth on both sides.

on shortish petioles. Flowers axillary, crowded; peduncles axillary, longer than the petioles, scaly, many-flowered; corollas small, greenish-white; calyx three-leaved, leaflets ovate, green, permanent, one superior; standard of two lower, reflex, whitish petals; wings large, ovate, on the outside of the standard and keel, similar to the calyx leaves, permanent; keel larger than the standard, concave, green. Filaments open in front, free at the top, very minute; anthers minute; germ roundish, compressed; style the length of the stamens; stigma obtuse; seed vessel a silicle, pedicelled, roundish, compressed, emarginate; seeds reniform, oblong.—*Sw.* Browne calls this plant the *bastard lignum vitæ* of the Red Hills, where this shrub grows very plentifully, rising generally to the height of seven or eight feet, or better. It receives its name because it tastes not unlike gum guaiacum, and is sometimes used for the same purposes. Swartz does not see why Linneæ named it *diversifolia*, all the leaves being alike. Sloane says the wood is white, hard, and solid; the bark smooth and grey.—Long says that the seeds are impregnated with a finely aromatic oil.

## 2. PANICULATA. PANICLED.

*Herbacea, minor, erecta; foliis linearibus; spica multiplici, terminali, folioso.* Browne, p. 287.

This is called *panicled milkwort*. The root is annual; stem from half a foot to a foot in height, round, smooth, divided above the middle; branches filiform, erect, leafy, smooth. Leaves sub-sessile, alternate, acute, entire, dotted, smooth. Peduncles or racemes terminating, filiform, erect, many-flowered. Flowers minute, purplish, nodding, on very short pedicels; calyx three-leaved, coloured, hinder leaflet larger, ovate, the two anterior oblong, acuminate; the standard two oblong, obtuse, erect, petals, covering the keel and wings, and converging in front at top; wings less than the standard, pale, lanceolate, converging above the keel, which is also less than the standard, covered, gibbous at the base, four-cleft at the tip, deciduous. Filaments shorter than the corolla, distinct in front, all united below, white, and pellucid; anthers oblong, yellow; germ ovate, compressed a little, convex, twin; style thick, curved, like a cornucopia; stigma funnel-form, oblique, bearded at the interior tip, pellucid. Seed vessel a silicle, oblong, emarginate at the tip and base, compressed, convex, two-celled, opening at the sides, two-seeded; seeds oblong, convex, brown, hairy, appearing echinated in a magnifier.—*Sw.* This beautiful little plant is pretty frequent in the drier hills of St. Catherine's. It has a great deal of the smell and taste of the *seneka*, or snake-root, but is not so strong or disagreeable. It is a mild attenuant and sudorific, and may be administered in infusions and decoctions, with great propriety, where such medicines are requisite. It grows generally to the height of six or seven inches, and is seldom branched below the middle.—*Browne.* Barham says it is called the *blue Chili milkwort*, and that a cold infusion all night in water, drank in the morning, proves a strong diuretic, and eases pleuritic pains.

LIGNUM VITÆ TIMBERWOOD—*See* BUCKTHORN.

## LILY.

## PANCRACTIUM.

CL. 6, OR. 3.—*Hexandria monogynia.* NAT. OR.—*Spathacea.*

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This generic name is derived from two Greek words, signifying all and power, or an herb of every virtue.

GEN. CHAR.—Calyx an oblong spathe, obtuse, compressed, opening at the flat side, shrivelling; the corolla has six petals, lanceolate, flat, inserted into the tube of the nectary, on the outside above the base; nectary one-leaved, cylindric-funnel-form, coloured at top, with the mouth spreading, and twelve-cleft; the stamens six filaments, awl-shaped, inserted into the tips of the nectary, and longer than they are; anthers oblong, incumbent; the pistil has a bluntly three-cornered inferior germ, a filiform style, longer than the stamens, and a blunt stigma; the pericarp a roundish capsule, three-sided, three-celled, three-valved; seeds several, globular. One species is a native of Jamaica.

CARIBÆUM. CARIBEAN.

*Narcissus totus albus latifolius polyanthos major odoratus, staminibus sexae tubi ampli margine exantibus.* Sloane, v. 1, p. 244. *Foliis compressis obtusis, scapo nudo, floribus umbellatis.* Browne, p. 194.

Spathe many-flowered; leaves lanceolate; segments of the corolla linear, and longer than the tube.

The tube of the corolla, which throws its agreeable scent to a considerable distance, has six roundish corners, proceeding as it were from the linear-lanceolate segments; it is from three to four inches long, and more than a quarter of an inch in diameter, greenish about half way, but becomes gradually whiter towards the segments, which are longer than it, and about a third of an inch broad, concave, bluntly mucronate.—The peduncle is always perfectly erect, and is nearly an inch broad, and one-third of an inch thick towards the base, being of an oval shape. The nectary is pure white in all its parts, funnel-shaped at top, seeming like a tender membrane uniting the stamens together for an inch and a half, and proceeding as it were from the mouth of the funnel, have a slight joint running vertically through its centre, by which it bends inward, somewhat in the manner of the membrane in a bat's wing, a little wrinkled, and expanding at the mouth from two and a half to three inches in diameter; the stamens are awl-shaped, and from two to three inches long, from the rim of the nectary. Germ bright green, about half an inch from the bottom of the pedicel, bluntly three-cornered. The leaves are seldom less than twelve, sometimes more, all proceeding from the top of the bulbous root; they are ovate-lanceolate, acuminate.

This has a truncated bulbous root, as large as a man's fist, coated like onions, with many white fibres from its base. The leaves grow two feet long, and are about three inches broad, channelled or concave in the inside, very green, juicy, and smooth; petioles sheathing at the base, spreading, half-round. From the centre of the leaves rises the peduncle, three or four feet high, not hollow, of a fungous consistence, and, when cut, dropping water; it is about a third of an inch thick in the centre, and tapers towards the edges, from the top of this issue six, seven, or more, very white and beautiful flowers, standing on pedicels about six inches long. The flowers have a very fragrant smell.—*Sloane.* This plant grows wild in most parts of Jamaica; the roots are of an acrid nature, emollient, maturing, and greatly suppurative; they are used externally in cataplasms for these purposes with success. The common form of applying them is boiled and bruised; but some prefer the roasting of them until tender,

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and then beating them to a paste with oil, in which form they are said to be excellent against burns. The bulbs in decoction are a diuretic drink for horses.

Two exotic species of this genus are cultivated in East's Garden; the *Carolinianum*, or Carolina; and the *littorale*, or tall pancratium.

## LILY.

## AMARYLLIS.

CL. 6, OR. 1.—*Hexandria monogynia*. NAT. OR.—*Spathaceæ*.

GEN. CHAR.—Calyx an oblong spathe, obtuse, compressed, emarginate, gaping on the flat side, and withering; corolla six lanceolate petals; nectary six very short scales, without the base of the filaments; stamens six awl-shaped filaments, with oblong, incumbent, rising anthers; the pistil has a roundish germ, furrowed, inferior; style filiform, almost of the length and in the situation of the stamens; stigma trifid, slender; the pericarp a sub-ovate, three-celled, three-valved, capsule; seeds several. One species is indigenous, the following; besides which a number of exotic species of this highly ornamental genus have been introduced.

## BELLADONNA.

*Lilio-narcissus polyanthos, flore incarnato, fundo ex luteo albescente.*  
Sloane, v. 1, p. 244. *Flore croceo nutanti; scapo nudo unifloro.*  
Browne, p. 195.

Corollas somewhat erect, six-petaled; petals flat; scape compressed; leaves sharply channelled, bluntly keeled, very smooth.

The root of this is bulbous, coated, and about the size of a large onion, with many white fibres at bottom; the leaves are a foot long, and an inch and a half broad, juicy, of a fresh green colour, blunt, round or obtuse at their ends, channelled inwards towards the stem. The peduncle rises from among the leaves; it is about eighteen inches high, hollow, from which proceed several flowers, growing out of a membranaceous sheath or follicle, bent back, or hanging down by two-inch long pedicels. The flowers are of a yellowish-red colour within, and of a carnation or pale red outside. It grows wild in many parts of Jamaica, and thrives best in a rich and shady place.

## LILY THORN.

## CATESBEA.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Luridæ*.

So named in honour of Mark Catesby, author of a Natural History of Carolina.

GEN. CHAR.—Calyx a four-toothed, superior perianth, very small, acute, permanent; corolla monopetalous, funnel-form; tube extremely long, straight, gradually widening upwards; border semi-quadrifid, broad, erect, flat; stamens four filaments, growing within the neck of the tube; anthers oblong, erect, almost longer than the corolla; the pistil has a roundish inferior germ, a filiform style, the length of the corolla, and a simple stigma; the pericarp is an oval berry, crowned, unilocular (bilocular); seeds many, angulate. One species is a native of Jamaica,

PARVIFLORA.

## PARVIFLORA. SMALL-FLOWERED.

*Rhamnus foliis buxæis minimis confertim nascentibus, spinis longis armata.* Sloane, v. 2, p. 100, t. 207, f. 1.

Tube of the corolla four-cornered, abbreviated; berries roundish.

This is a woody shrub, covered with a smooth greenish bark; leaves in clusters of three and four, small, of the consistence of box-leaves, smooth, green, narrow at the beginning, broad towards the end, where they are roundish. From among the leaves issue two spines, longer than them, green and sharp; among them also comes the flower, succeeded by a coronated berry.—Sloane.

LIMA-BEAN—See KIDNEY-BEANS.

## LIME AND LEMON TREES.

## CITRUS.

CL. 18, OR. 3.—*Polyadelphia icosandria.*

NAT. OR.—*Bicornes.*

GEN. CHAR.—See Citron, p. 196.

## LIMON. LEMON.

*Limo arbor, ejusq: fructus limo.* Sloane, v. 2, p. 178. *Fructus ovato acido, superficie inequal.* Browne, p. 303.

Leaves ovate-lanceolate, acuminate, sub-serrate.

This tree, in a wild state, grows ten to fifteen feet high, with a crooked, knotty, irregular, stem, and many crooked, diffused, prickly, branches; the leaves are ovate-lanceolate, serrate, standing on winged petioles, from five to six inches long, and from two to two and a half broad. Flowers few together, on terminating peduncles, of a pure white colour. The fruit is rough, oval, and grows to a considerable size, with a prominence at top. It is a hardy plant, and makes good fences, but far inferior for that purpose to the lime, as being of a larger growth, the stems drop their leaves and branches, and, in old fences, leave many openings; the lime being of a more shrubby nature, and having a denser foliage, if properly trimmed, makes so close a fence to the very ground, that the smallest animals cannot pass through. Besides the common lemon, the St. Helena lemon-tree has also been generally cultivated in Jamaica, on account of the largeness of its fruit, and great quantity of its juice; which also seems to be of a milder nature than that of the other.

## LIMA. LIME.

*Malus aurantia, fructu limonis pusillo, acidissimo.* Sloane, v. 2, p. 182. *Fructu spherico ovato, punctato, levi, minori, acido.* Browne, p. 303.

This bushy tree does not grow to any great height, and is generally used for making fences, for which it is admirably adapted, by its thick and beautiful foliage, as well as the prickly nature of its stem and branches. The leaves are ovate-acuminate, serrate, not so large but of a much darker green than those of the lemon; they stand on winged petioles. The flowers grow three or four together, the petals white, anthers yellow; stamina twenty in several parcels. The berry is generally about an inch and a half in

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diameter.

diameter, containing a great quantity of juice, which, in Jamaica, is preferred to lemon juice for making punch, and other domestic purposes. The rind of this, as well as of the lemon, is of a very odorous and aromatic nature. They both become of a beautiful yellow colour when ripe. The root is bitter.

The *French lime* tree, as it is called, is to be found in many parts of Jamaica; it is of a larger growth than the other, and shoots more into the regular form of a tree, which, from its beautiful dark green leaves, smaller, more acuminate, and more slightly serrate, than those of the common, has a very pretty appearance, especially when in flower or fruit, which it bears most abundantly. The flower is similar in every respect to the other, but the fruit is larger, more beautiful, being tinged with fine shades of red, and contains a greater proportion of juice, of a milder and more agreeable nature. It is also distinguished from the others by the petioles of the leaves being round and without wings, though in very large luxuriant leaves they are sometimes perceptible.

The *sweet lime* tree, another variety, puts on the appearance of a tree, and, as Browne observes, bears a fruit which, in size and form, seems to hold a mean between the lime and the lemon. The juice is of an insipid sweetish taste, but the bark and fibres of the root are bitter, like those of the common lime.

If limes are intended for exportation, they should be gathered when a yellowish tinge first begins to appear on some part of the rind, and will keep well, hung up in an airy part of the ship in nets; or, where a quantity is sent, they may be packed up in dry-corn husks, and stowed in a cask which has some air holes made in it. If a method could be fallen upon of drying the ripe fruit in Jamaica, until the coat grew perfectly hard and tough, it would bear the voyage much better so preserved, and go in excellent condition for use; and this, I apprehend, may be done by exposing it, spread out on a platform, to the hot sun, after the manner of pimento, for a week or two before it is packed for exportation. The unconcocted juice of the green fruit is generally injurious to weak bowels.

This fruit, as well as the lemon, makes an excellent sweet meat, cleared of the pulp, and prepared with the best clarified sugar.

The bark and fibres of the lime-tree root are excellent strengthening aperitives, and found frequently effectual in obstinate febrile cases, as well as in weaknesses and obstructions of the bowels. Barham says the Indians use the root in venereal cases. A decoction of them a good fomentation for sores. The leaves are generally used in discutient baths; and the fruit in a variety of cases. The crude juice, mixed with salt of wormwood, is given in the state of ebullition in fevers, and commonly used in the composition of saline draughts. The fruit is roasted, and the pulp applied to cleanse ulcers. It answers all those intentions, where a livelier sub-acid than that of the lemon is required.

The negroes take the young fruit, soon after it is formed, or when it is about the size of a small hazel nut, pare off the rind, which they beat into a fine pulp, and with a hair pencil, apply it carefully to the lids of sore eyes for a cure. It is supposed, the rawness of the eye-lid, accompanied with a humour, is generally caused by worms, which lodge in it, and that this application destroys them. This hint is worth further attention, since the animalcules, if they really lodge there, may be discoverable by proper glasses; and hence the knowledge obtained, whether the application would be proper or otherwise. There are varieties of this fruit: The small round lime; the large oval; the bergamot; the sweet lime.

The efficacy of lemon or lime juice in preventing the sea-scurvy, has been commended.

mended by all modern writers on the subject, and was not unknown in the earlier times of our navigation. Sir James Lancaster, in his voyage, where he was general in the East Indies, in the year 1601, carried with him several bottles of lemon juice; and by giving three spoonfuls to each sailor in the morning, who then fasted till noon, kept them entirely free from, or cured them of, this terrible disorder. The juice of limes and lemons depurated, and mixed with good rum, makes the liquor called shrub, and may be considered as an article of export.—*Long, p. 795.*

In Captain Cook's voyages great benefit was derived from lemon and orange juice; and found in the sea-scurvy to be very efficacious. Sir John Pringle approves more of the juices themselves depurated, than the extract of them, as this cannot be prepared without dissipating many of the finer parts. The yellow peel of the lemon is an agreeable aromatic as well as of the orange; and in cold phlegmatic constitutions they prove excellent stomachics and carminatives, promoting appetite, warming the habit, and strengthening the tone of the viscera.

Lemons are cooling and grateful to the stomach, quenching thirst and increasing appetite; useful in fevers, as well common as malignant and pestilential; they also provoke urine. The juice, mixed with salt of wormwood, is an excellent medicine to stop vomiting and to strengthen the stomach. In distillation it yields an essential, light, colourless, oil. Six drachms of the juice of lemons, saturated with about half a drachm of fixed alkaline salt, with the addition of a small quantity of some grateful aromatic water, as tincture of simple cinnamon water, is given (doses for adults a wine-glass full every two, four, or six, hours) in cases of nausea, reachings, and generally abates, in a little time, the severe vomitings that happen in fevers, when most other liquors and medicines are thrown up as soon as taken. It is also used as a saline aperient in icterical, hydropical, inflammatory, and other disorders. A syrup made by dissolving forty-eight or fifty ounces of fine sugar in a quart of depurated juice, is mixed occasionally with draughts and juleps, as a mild antiphlogistic, and sometimes used in gargarisms for inflammation of the mouth and tonsils.—*Lewis Mat. Med.*

An intelligent author asserts, that he has known a disordered stomach entirely recovered by the use of lemon or orange peel, infused in the same manner as tea.—*Clement's Institutes of Health, p. 22.*

In fluxes, with fever and symptoms of inflammation, bleed to eight ounces. When there is little or no fever, the following mixture has done much good: Lime-juice three ounces; as much sea or common salt as the acid will take up; water twelve ounces; sugar two ounces; rum one ounce; two table spoonfuls every three or four hours, as the case may require.—*Grainger.*

The following recipe was communicated by the late Dr. Affleck, of the parish of Portland, who said he had it from an old practitioner, and had himself frequently used it in dropsical cases with success:

“Take lemon juice one quart; spring water one pint; white lily root, bruised, one pound; cowitch twelve pods; boil them to the consumption of one-third; strain, and add one pint of rum, one ounce of turmeric root, in powder: shake them well together, and give a small wine-glass full every morning, at the same time use the dumb-cane ointment, as Dr. Barham directs, with the exception of the cataplasm to the scrotum, as it frequently brings on a mortification.” Rubbing the forehead and temples with the juice removes the head-ache.

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The juice of limes and lemons being an article not of luxury but of so much medical use, a good mode of purifying and preserving it must be a very desirable object. By a late chemical experiment of Scheele's the citric acid was obtained in a state of purity in crystals. He saturated lemon-juice with lime, edulcorated the precipitate, which consisted of citric acid and lime, separated the lime from it by diluted sulphuric acid, cleared it from the sulphate of lime by repeated filtrations and evaporation; then evaporated it to the consistence of a syrup, and set it by in a cool place: a quantity of crystals formed, which were pure citric acid. In this state it suffers no alteration from exposure to air; but an ounce of the distilled water, at the temperature of the atmosphere, dissolves one ounce and two drachms of it. Boiling water dissolves twice its weight. It has a very acid taste, and turns vegetable blues red. Within a few years an important use has been made of this powerful acid. It is said, in Dr. Wullich's *Treatise on Opium*, p. 339, that the largest dose of opium may be checked in its narcotic effects, if a proper quantity of citric acid be taken with it; and that, with this adjunct, it induces cheerfulness instead of stupefaction, succeeded by gentle and refreshing sleep. It has also been found very useful to our manufacturers.

We are enabled to preserve this juice in a more simple manner, for ordinary uses, by M. Brugnatelli, who, in the 2d volume of his *Annals of Chemistry*, informs us, that he extracted, in the common manner, the juice of perfectly ripe lemons, and strained it through a piece of linen. In half an hour he strained it again, to free it from a little slimy matter which had settled at the bottom of the vessel. He then added to the juice a certain quantity of the strongest spirit of wine (for which pure undistilled rum is a good substitute), and preserved the mixture some days in a well corked bottle. During that time there was a considerable deposit, which, to all appearance, was of a slimy nature, and which he separated by filtering paper. If the fluid was too thick to pass through the filter, he diluted it again with spirit of wine.—After this operation the deposit remained on the paper, which was entirely covered with it, and he obtained, in the vessel placed below, the purest acid of lemons, combined with spirit of wine. If it be required to obtain the acid perfectly pure, nothing is necessary but to separate from it the spirit of wine, which is best effected by evaporation. The acid of lemons assumes, after it has been freed from the spirit of wine, and the moisture combined with it, a yellowish colour, and becomes so strong, that by its taste it might be considered as a mineral acid. It is not necessary to evaporate the spirit of wine in a close vessel, if the experiment is made only on a small scale; nor is there any danger that in open vessels any of the acid will be lost, as it is too fixed to be volatized by the same degree of heat at which spirit of wine evaporates. This acid has peculiarly valuable properties, well worthy of farther examination.

See CITRON—ORANGE—SHADDOCK.

LION'S-TAIL—See DANDELION.

No English Name.

LIPPIA.

CL. 14, OR. 1 — *Didymia gymnosperma*. NAT. OR.—*Stellata*.

So named from Augustine Lippi, who travelled in Egypt, and died in Abyssinia.

GEN.



GEN. CHAR.—Calyx a one leafed, compressed, four-toothed, perianth, bi-valved when mature; valves membranaceous, acuminate, keeled, upright, permanent; corolla one-petaled, unequal, border four-cleft, divisions rounded, the inferior and superior one larger, the superior erect; the stamens four filaments, shorter than the corolla, two of them longer than the others; anthers simple; the pistil has an ovate, compressed, flat, germ, a filiform style, and oblique stigma, no pericarp, the valves of the calyx cover the seeds, which are solitary, oblong. One species is a native of Jamaica.

CYMOSA. CYMED.

*Spirea congener spinosa, folio subrotundo acuminato integro, pulegii odore, fructu parvo oblongo, canulato, coronato.* Sloane, v. 2, p. 30, t. 174, f. 3, 4

Flowers cymed; leaves ovate, almost entire.

This shrub has often several stems from the same root, each no bigger than a goose-quill, round, woody, brownish-black, from three to six feet in height, slender, and requiring support: the twigs are many, opposite, having sharp prickles, one-third of an inch long, and opposite leaves, half an inch in diameter, a little pointed at the ends, almost round, yellowish-green, smooth, something like those of *nummularia*, and very strong scented, like *pulegium*; petioles an eighth of an inch in length. The flowers come out at the top, are small, many together, of the colour and somewhat resembling those of *spirea theophrasti*, though not so close set, nor so handsome.—Seeds small, oblong, channelled, brown. It grew in the savannas about St. Jago de la Vega.—Sloane.

## LIQUORICE-WEED OR SWEET BROOMWEED. SCOPARIA.

CL. 4, OR. 1.—*Tetrandria monogynia.* NAT. OR.—*Personatae.*

This is derived from *scopa*, a besom, for which use the plant is adapted.

GEN. CHAR.—Calyx a one-leafed, four-parted perianth, concave; segments slender, rugged; corolla one-petaled, wheel-shaped, spreading, concave, four-parted; segments tongue-shaped, obtuse, equal; throat bearded; stamens four filaments, equal, awl-shaped, shorter than the corolla, with simple anthers, the pistil has a conical germ, an awl-shaped style, the length of the corolla, permanent, and an acute stigma; the pericarp is an oblong conical capsule, acuminate, one-celled, two-valved; seeds very many, oblong. One species is a native of Jamaica.

BULB IS SWEET.

*Veronica fruticosa erecta dulcis, hexangulari caule, flore dilute ceruleo.* Sloane, v. 1, p. 195, t. 108, f. 2. *Erecta ramosa, foliis linearibus denticulatis verticillato-ternatis.* Browne, p. 145.

Leaves in threes; flowers peduncled.

The root is annual; the stalks woody and hexangular, rising two feet high, and sending out many branches, which have three leaves placed round at each joint, sessile, the uppermost the largest, being three-quarters of an inch long, and half an inch broad.

broad, smooth, serrate, and of a deep green colour. The flowers come out from the side of the stalk at each joint, on short peduncles; they are small, white, and the petals have bearded threads on their edges; the capsule is light brown, membranaceous, no bigger than a pin's head, containing many hardly perceptible seeds, standing round a fungous substance. This plant is very common in most of the sugar colonies, and the leaves have a sweet taste like liquorice. Browne says the whole plant, especially the tender shoots at the top, are frequently used in diluting and pectoral infusions, and may be deservedly considered as an excellent vulnerary. Barham says, that three spoonfuls of the expressed juice of this plant, given morning and night for three or four days, is an infallible remedy for a cough. Some planters use this as an ingredient in diet drinks for venereal disorders,

## LIQUORICE, WILD.

## ABRUS.

CL. 17, OR. 4.—*Diadelpia decandria*. NAT. OR.—*Leguminosæ*.

This takes its generic name from a Greek word signifying soft, from the extreme tenderness of its leaves.

GEN. CHAR.—Calyx a one-leafed, bell-shaped perianth, obscurely four-lobed; teeth blunt, the upper one broader than the rest; corolla papilionaceous; banner roundish, entire, ascending, flattened at the sides, longer than the wings and keel; wings oblong, blunt; keel oblong, sickle-shaped, gibbous, longer than the wings; the stamens are nine filaments, united into a sheath, cloven above, free at the end, unequal, rising; anthers oblong, erect; the pistil has a cylindric hairy germ; style subulate, rising, shorter than the stamens; stigma in form of a head, and small; the pericarp a legume like a rhomb, compressed, coriaceous, bivalved, four or five-celled, acuminate, with a little subulate deflex claw; seeds solitary, sub-globose. There is only one species, a native of Jamaica.

## PRECATORIUS. PRAYING.

*Phaseolus glycyrrhizites, folio alato piso coccineo atra macula notato.*  
Sloane, v. 1, p. 180, t. 112, f. 4, 5, 6. *Scandens, foliis pinnatis,*  
*spicis nodosis axillaribus.* Browne, p. 297.

This is a perennial plant, with slender, shrubby, branching, stalks, about the bigness of a goose-quill, by which it rises to the height of eight or ten feet, when it meets with support, and is common among the bushes in all the low lands. The leaves are pinnate, ending abruptly, and have from twelve to sixteen pairs of small, smooth, oblong, blunt, leaflets, set close together; these have the taste of liquorice, as has the whole plant. The flowers are produced from the sides of the stalks in short spikes or bunches, of a pale purple colour, and shaped like those of the kidney bean; they are succeeded by short smooth pods, each containing three or four hard seeds, very smooth, of a bright scarlet colour, with a black spot or eye on that side which is fastened to the pod. They are frequently strung and worn as necklaces and other ornaments; and were used as beads for rosaries, whence the trivial name *precatorius*.

It grows in both the Indies. In the East Indies they make necklaces of the fruit or peas, which they say prevent the children that wear them from the fever, make them  
broad

breed their teeth easy, and prevent cramps and convulsions. They are of a more beautiful red than red coral; and, if fit for nothing else, they make beautiful necklaces. I knew a gentleman in Jamaica that made a tea of the leaves, and drank of it many years, which he said kept him in good health. I have often ordered a pisan of the leaves with good success in cholics. The root of this plant, although it hath not the taste of liquorice, yet it hath the colour, both outside and inside, of English liquorice root. I have observed sheep to feed greedily upon its leaves.—*Barham*, p. 88.

The infusion of the leaves and tops is much used in all our sugar colonies, and observed to open both the body and skin very mildly; it helps expectoration; relieves all loads of the breast, proceeding from temporary colds; and is frequently used as a diaphoretic in fevers; and the more generally liked as the taste is somewhat sweetish, but does not leave any clamminess upon the palate. The seeds are of a very deleterious nature, and cannot be taken inwardly without great danger; though, if swallowed whole, they commonly pass entire, and are seldom attended with any of those violent symptoms that follow when taken in powder, which always works both upwards and downwards, with the greatest violence; the operation being attended with anxiety and convulsive spasms. Herman says that three or four seeds is a mortal dose, but that he has made an extract from the roots no way inferior to that obtained from the roots of liquorice.—*Browne*.

This plant was removed from the genus *glycine* by Linneus—for which see the article Red-Bead Tree and Vine.

### No English Name.

### LISIANTHUS.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Rotacea*.

This name is derived from two Greek words signifying smooth and a flower.

GEN. CHAR.—Calyx a five-parted perianth; leaflets lanceolate, keeled, membranaceous on the margin, very short, permanent; corolla one-petaled; funnel-form; tube long, somewhat ventricose, straitened at the base within the calyx; border five-parted; divisions lanceolate, shorter than the tube, recurved; the stamens five filaments, filiform, longer than the tube, with ovate incumbent anthers; the pistil has an oblong sharp-pointed germ, a filiform style, the length of the stamens, permanent; stigma headed, two-plated; the pericarp is an oblong capsule, acuminate, two-celled; the margins of the valves intorted; seeds numerous.—Five species are natives of Jamaica.

#### 1. LONGIFOLIUS. LONG-LEAVED.

*Rapunculus fruticosus linifolius, flore-luteo specioso; foliis ex adverso sitis.* Sloane, v. 1, p. 157, t. 101, f. 1. *Erectus, foliis lanceolatis floribus singularibus terminalibus.* Browne, p. 157, t. 9, f. 1.

Leaves lanceolate; segments of the corolla lanceolate, acute.

This elegant plant Browne says rises fourteen or sixteen inches, Sloane four or five feet. The branches and twigs are woody; the branches shooting commonly to the same height, and furnished with oblong-pointed, petioled, opposite, leaves, each pair set an inch distant; they are about an inch and a half long, and half as broad in the middle.

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## HORTUS JAMAICENSIS.

## LIVERWORT

middle, smooth, and of a dark green colour. The tops of the twigs are generally branched, and carry several flowers of a yellow colour, which are large in proportion to the plant, and generally longer than the leaves. The capsule is pyramidal, oblong, covered with a few small leaves, three-celled, with great plenty of small brown seeds in each cell. The whole plant makes a beautiful appearance, and is not uncommon in the road to Sixteen Mile Walk, about Guanaboa, and the mountains in St. Ann's. It grows in a dry sandy but cool soil.—*Sloane & Browne*.

### 2. CORDIFOLIUS. HEART-LEAVED.

*Foliis cordato-acuminatis, petiolis brevibus, floribus terminalibus quoadque geminatis.* Browne, p. 157, t. 9, f. 2.

Leaves cordate; segments of the corolla lanceolate, acute.

Browne remarks that this plant may be deemed a variation of the foregoing, or that they are at least so very like in the general make and habit, that the form of the leaves is almost the only difference: he found it on the banks of Mamee River, between the hills above Bull-Bay. Swartz observes that the leaves are always heart-shaped, the upper ones only being ovate and sessile; the corollas are also rather larger.

### 3. EXSERTUS. LONG.

Leaves ovate-lanceolate; peduncles trichotomous; genitals very long.—*Sw.*

### 4. LATIFOLIUS. BROAD-LEAVED.

Leaves lanceolate-elliptic, acuminate; peduncles trichotomous; segments of the corolla erect; genitals included.—*Sw.*

### 5. UMBELLATUS. UMBELLED.

Leaves elongated, ob-ovate; flowers terminating, peduncled, umbelled; segments of the corolla very short, blunt, upright.

LITCHI-PLUM—*See SOAPBERRY.*

## LIVERWORT.

## LICHEN.

CL. 24, OR. 5.—*Cryptogamia algæ.* NAT. OR.—*Algæ.*

GEN. CHAR.—*Male flowers.*—Vesicles conglomerated, extremely small, crowded, or scattered on the disk, margin, or tips of the fronds. The female flowers, on the same or on a distinct plant: Receptacle roundish, flattish, convex, (*tubercle*), concave, (*scutella*); sub-revolute, affixed to the margin (*pelta*), often differing from the frond in colour, within containing the seeds, disposed in rows. This is an extremely numerous genus, twenty species of which have been found in Jamaica.

### 1. LEUCOMELUS. BLACK AND WHITE.

*Cinerea, fibris lateralibus nigris crinita.* Browne, p. 80.

Naked, glabrous, white on both sides, mealy beneath; segments linear, branched, fringed with black on the margin; shields pedicelled, nearly terminal, flat, blueish black, with a white radiate margin.—*Sw. Obs. t. 11, f. 3.*

*Browne*

Browne calls this the *bearded platisma*, frequent in the woods of Jamaica, of a whitish ash colour, and remarkable for its black beard.

## 2. FLAVICANS. YELLOW.

*Lutea, fibris sub-aqualibus subrigidis intertextis.* Browne, p. 88.

Foliaceous, glabrous, fulvous, branched, linear, roundish, smooth; shield plane-margined, of the same colour.

Browne calls this the yellow rigid *usnea*, which is a little mossy plant, growing commonly in every part of the woods; its fibres seem to be pretty even in every part, and generally connected in an irregular tufted form.

## 3. LURIDUS. LURID.

Imbricate; lobes orbicular, crenate, brown green, paler underneath; shields black, becoming convex.

## 4. FUNGOIDES. FUNGUS-LIKE.

Whitish, leprous, tubercled, elevated, headed, of different forms, somewhat fleshy.

## 5. PANNOSUS. RAGGED.

Crustaceous, below black-hairy, above obsolete many-lobed, shields convex, reddish.

## 6. IMPRESSUS. MARKED.

Crustaceous, white, orbicular, concave, blueish, white margined.

## 7. GOSSYPIMUS. COTTONY.

Crustaceous, capillary, woolly-tomentose, white, orbicular, concave; shields black, white-margined.

## 8. PICTUS. PAINTED.

Imbricate; leaves many, sinuated, the disk from the centre whitish; shield black, white-margined.

## 9. COCOS.

Imbricate; leaves adnate, sinuated, whitish; shield partly black.

## 10. DAMECORNIS. BUCK-HORNED.

Foliaceous, many-parted, dichotomous, smooth; summits bifid, below tomentose, with peltate margins.

## 11. LAGINIATUS. LACINIATED.

Foliaceous, rigid, depressed, with irregular incisions, smooth, tomentose below.

## 12. CERATOPHYLLUS. WAX-LEAVED.

Foliaceous, upright, laciniated; leaflets obtuse, horny.

## 13. DIAPHANOUS. CLEAR.

Foliaceous, membranaceous-pellucid blue, tender, laciniated, undulate-plaited; incisions curved; shields scattered, ferruginous.

## 14. MARGINELLUS. MARGINED.

Foliaceous, membranaceous-pellucid; lobes undulate-plaited; shields marginal, minute-ferruginous, white-margined.

## 15. VESICULOSUS. BLADDERY.

Foliaceous, membranaceous-pellucid; lobes undulate-bladdery; bladders turbinate, open below, shield-form at top; shields convex, reddish.

## 16. DISSECTUS. DISSECTED.

Foliaceous, depressed; lobes lacinated, obtuse, smooth and white on both sides, peltate, concave, scattered.

## 17. TOMENTOSUS. DOWNY.

Foliaceous, depressed, membranaceous, roundish, lisd, smooth, lobes below hairy-tomentose.

## 18. AGGREGATUS. AGGREGATE.

Shrubby, branchy, imperforate at the axils; branches erect; tubercles clustered, terminal, grained.

## 19. MELANOCARPUS. BLACK.

Shrubby, branches solid, whitish; branchlets leafy, compressed; tubercles globose, depressed, somewhat tomentose.

## 20. RAMULOSUS. BRANCHY.

Shrubby, branches solid, covered; leaflets thread-like; tubercles globose, solid, terminal.

Many of the species of this genus are useful in dyeing, and, it is supposed, that proper trials would discover many economical uses in them. Barham says, "Liverworts are so called from their great virtue in curing diseases of the liver, and consequently are good in the jaundice. They gently purge choler; bruised, and boiled in beer, and drank plentifully of, they help in a gonorrhoea and female weakness; outwardly applied, are said to cure malignant scabs, tetters, and ring-worms; and to cleanse and heal old ulcers."—Barham, p. 90.

See MOSSES and SEA-WEEDS.

## LOBLOLLY-WOOD.

## CUPANIA.

CL. 8, OR. 1.—*Octandria monogynia*. NAT. OR.—*Trihilata*.

This was so named from Francisco Cupani, of Sicily, a Franciscan, and author of some botanical works.

GEN. CHAR.—Calyx a five-leaved inferior perianth; corolla five-petaled, cowlled at the top; stamens eight filaments, with oblong anthers; the pistil has an ovate germ, a short style, trifid at the tip, and blunt stigma; the pericarp is a coriaceous capsule, three-lobed, three-celled, three-valved; the seed solitary, roundish, with a bell-shaped, crenate, aril, embracing the seed like the calyx. One species is a native of Jamaica.

GLABRA.

GLABRA. SMOOTH.

*A. Boreu foliis oblongis crenato-serratis distiche et alternatim sitis, racemis laxis propendentibus.* Browne, p. 178.

Leaves pinnate-ovate, obtuse, crenate, smooth.

The leaflets of the calyx are ovate-acuminate, concave; the petals clawed, ciliate; the nectary a fleshy ring, surrounding the germ and stamens; the filaments rise from the base of the corolla, broader at bottom, villose, the same length with the petals; the germ roundish, three-cornered; style subulate, the length of the stamens, trifid at the tip; stigma small, almost upright; the pericarp is obtusely three-cornered; the seed spherical or oblong; the aril coloured, fastened to the seed above the middle.—

*Sw* Capsule of a dusky ferruginous colour, opening into three parts at the tip, scarcely to half its length, and quite entire at the bottom; the sutures of the valves towards the top have a narrow groove, but the sides have a deep one, to which the partitions correspond within. Seeds solitary, brown; aril incomplete, spongy-membranaceous, of a dirty-white colour, funnel-shaped, with a solid beak, but the cup involving the seed half way, and ending in a repand, toothless, margin.—*Gartner*.—

This shrubby tree is pretty common in the lower hills of Jamaica, and rises generally to the height of twelve or fourteen feet; the leaves are pretty large, and the wood soft and useless, from whence its name. Each of the seeds has a proper cup within the capsule.—*Browne*.

## LOBLOLLY-BAY.

## GORDONIA.

CL. 16, OR. 6,—*Monadelphia polyandria.* NAT. OR.—*Columniferae.*

This was so named after Mr. James Gordon, an eminent nurseryman in London.

GEN. CHAR.—Calyx five-leaved; petals five, united at the base by means of the nectary; stamens numerous filaments, inserted into the nectary, by which they are united; anthers oval, upright; the pistil has an ovate germ, a short style, and five sharp horizontal stigmas; the pericarp a superior five-celled capsule; seeds winged. One species was discovered in Jamaica by Swartz.

## HEMATOXYLON.

Leaves ovate-pointed, serrate, recurved at the tip; peduncles very short; flowers with five styles.

The plants of this genus differ in habit from the malvaceous tribe, and the filaments not being united at bottom, but only inserted into the nectary, it more properly belongs to the class *polyandria*.

LOBLOLLY SWEETWOOD—See SWEETWOOD.

LOCUS-BERRY-TREE—See BARBADOS-CHERRY.

## LOCUST-TREE.

## HYMENEAE.

CL. 10, OR. 1.—*Decandria monogynia.* NAT. OR.—*Lomentaceae.*

GEN.

GEN. CHAR.—Calyx a one-leafed, coriaceous perianth; tube short, turbinate, compressed, permanent, with an oblique mouth; limb five-parted, almost regular, upright, deciduous; segments ovate, blunt, two opposite, flattish, a little broader; two others concave, with one side narrower; corolla five-petaled, inserted into the neck of the calyx, sub-papilionaceous, with the petals almost equal; the two upper petals of the banner obliquely ovate, obtuse, sessile, at the upper concave segment of the calyx; wings two petals, similar, lateral, a little narrower; keel the lowest petal, channelled and excavated, approximating to the wings, within the lower hollow of the segment of the calyx; the stamens are ten filaments, distinct, awl-shaped, erect, bent down above the middle, very long, between the keel and the wings, inserted into the neck of the calyx, with linear anthers, fixed by the back; the pistil has a sabre-shaped germ, compressed, pedicelled; style very long, bristle-shaped, bent down; stigma thickened, obliquely truncate; the pericarp is a woody legume, very large, ovate-oblong, obtuse, one-celled, filled with farinaceous pulp; seeds several (four to eight), large, ovate, wrapped up in pollen and fibres. There is only one species.

## COURBARI.

*Resina pallide lutea, odorata, gummi elemi dicta similis.* Sloane, v. 2, p. 186. *Foliis geminatis parallelis, paginis inaequalibus, racemis terminatricibus.* Browne, p. 221.

This is a very large spreading tree in the West Indies, where it grows plentifully; it has a large stem, covered with a russet bark, which divides into many spreading branches, garnished with smooth stiff leaves, which stand by pairs, their base jointing at the footstalk, to which they stand oblique, one side being much broader than the other, the two outer sides being rounded, and their inside straight, so that they resemble a pair of sheep-shears; they are pointed at the top, and stand alternately on the stalk. The flowers are produced in loose spikes at the end of the branches, some of the short ligneous footstalks supporting two, and others three, flowers, which are composed of five yellow petals, striped with purple; the petals are short, and spread open; the stamens are much longer, and of a purplish colour: these flowers are succeeded by thick, fleshy, brown, pods, shaped like those of the garden bean; they are six inches long, and two and a half broad, of a purplish-brown colour, and a ligneous consistence, with a large suture on both edges; they contain three or four roundish, compressed, seeds, divided by transverse partitions, and inclosed in a whitish substance, as sweet as honey, which the Indians eat with great avidity, though it is apt to purge when fresh gathered; but loses this quality as it becomes old.

This tree is not an indigena of the island, but introduced probably from the southern continent, and was first planted in Liguanea; the seeds obtained from it were afterwards sown in other parts, so that it is now common. I have been informed, that it was generally brought into this island, by the little colony removed from Surinam; who planted a great variety of seeds, and (among others) of this tree; particularly at the spot allotted to them, called *Surinam Quarters*, in the parish of St. Elizabeth, where the species is now growing in vast abundance.

Between the principal roots of the tree exudes a fine transparent resin, yellowish or red; which is collected in large lumps, is called the gum *animi* of the shops, and makes the finest varnish that is known, superior even to the Chinese *lacca*; for this latter use



it is dissolved in the highest rectified spirits of wine. It burns readily with a clear flame, emitting a grateful and fragrant smell, for which reason it is sometimes ordered by way of fumigation in the chambers of persons labouring with asthmas, or suffocative catarrhs. Its vapours not only strengthen the head, but all parts of the body affected with cold. Some apply it outwardly, dissolved in oil or spirits of wine, to strengthen the nerves. An oil may be distilled from it, equally prevalent in all cold diseases, palsies, cramps, and contractions of the sinews. The solution in spirits has been thought not inferior to guaiacum in venereal cases, given in a dose of half a spoonful in wine, and sweating after it. A decoction of the leaves expels flatulencies, and gives ease in cholicky pains, by gently opening the bowels; and the inward bark is an excellent vermifuge in substance or decoction. The wild bees are fond of building their nests in these trees; so that if we agree with the Dutch in opinion, that St. John the Baptist fed upon the fruit of them, we have no difficulty in supposing that he found the locust and wild honey, mentioned in Scripture, on the same tree.—*Long*, p. 728.

—The first I ever saw of these trees was about twenty-seven years past, at one James Pincock's, at Liguanea, in Jamaica, who told me it was a Barbadoes locust-tree. It was a fine spreading tree, in bigness and shape of the English beech-tree. The fruit is broad and thick, with a hard shell, and about six inches long, of a cinnamon colour; wherein were three or four round, flat, blackish, beans or stones, bigger than those of the tamarind, inclosed in a whitish substance of fine filaments, as sweet as sugar or honey. When fresh gathered it is said to purge; which quality it loseth as it grows old. The juice or decoction of the leaves expels wind, and eases the cholic pain, by giving a stool or two. The inward bark destroys worms in young or old.—*Barham*, p. 91. The wood is looked upon as an excellent timber, but it must be very old before it is cut, otherwise the heart will be but small. It is a spreading shady tree, and found in many parts of Liguanea. It is very common in Antigua, and there it grows naturally.—*Browne*. This tree is in great request for wheel-work in sugar mills, particularly for cogs to the wheels, being extremely hard and tough; it is so heavy that a cubic foot weighs about one hundred pounds, and it takes a fine polish.—*Jacquin*.

The following observations on the characters of this tree are from the manuscript of Mr. Anthony Robinson:

“ On the 8th July, 1759, I had the pleasure of seeing the perfect flower of the *hymenæa* of Linneus expanded, from which I took this description. The receptacle of the cup was bell-shaped, permanent; the perianth consisted of four ovate, coriaceous, thick, leaves, almost equal, placed scalewise, which, for the most part, dropped as soon as the petals were expanded. The leaves of the cup were placed on the margin of the receptacle. The petals were white, five in number, ovate, erect-patent, and almost equal, as long as the cup: the stamina were ten subulated, erect-patent, filaments, one-fourth longer than the petals; the germen was placed on a receptacle, arising out of a hole in the centre of the receptacle, compressed and small; the style subulated, and somewhat longer than the stamens; the stigma coronated; the anthers were large, oblong, and the flower has nothing of a pyramid in its form. This description was taken from a tree raised from the seed, and ten years old. There was great difficulty in getting a complete flower, though the tree abounded with them, for the leaves of the cup dropped off with the least motion. The petals were considerably permanent, but the stamens more so. Linneus has described the blossom erroneously.

LOFTY.

## LOFTY-GRASS.

## EUIRENA.

CL. 5, OR. 1.—*Triandria monogynia*.NAT. OR.—*Calamariæ*.

So named in memory of George Fuiten, a learned Dane.

GEN. CHAR.—Calyx an imbricate ament, with awned scales; corolla three petal-shaped, ob-cordate, glumes, ending in a tendril; stamens three linear filaments, with linear anthers; the pistil has a three-cornered germ, a filiform style, and two revolute stigmas; no pericarp, except the withered corolla, inclosing the seed; seed three-cornered, naked, without any villose hairs. There is only one species, a native of Jamaica.

PANICULATA. PANICLED.

This is called *lofty-grass* on account of its height; the leaves are on the stem, with loose, pitcher-shaped, hairy, sheaths; panicles terminating and axillary, composed of cylindric, scabrous, spikelets; which are oblong, about three lines in length, conglomerate, blackish, imbricate, with ob-ovate, concave, rigid, scales, having three keels, uniting at top into an awn. It has the appearance of a *scirpus*.

## LOGWOOD OR CAMPEACHY-WOOD.

## HEMATOXYLUM.

CL. 10, OR. 1.—*Decandria monogynia*.NAT. OR.—*Lomentaceæ*.

This generic name is derived from two Greek words signifying blood and wood, from the colour of its wood.

GEN. CHAR.—Calyx a one-leaved perianth, coloured; tube very short, pitcher-shaped, fleshy, permanent; border five-parted, spreading, deciduous; parts oblong, blunt; the four upper ones equal, the lowest a little longer than the rest; the corolla has five petals, lanceolate, broadest at the top, blunt, veined, spreading, nearly equal, inserted into the calyx, and longer than its divisions; the stamens ten subulate filaments, hairy at bottom on the inside, upright, unequal, scarcely longer than the corolla, inserted into the calyx; with oval small anthers; the pistil has an oblong, sabre-shaped, compressed, germ, a capillary style, bent at the tip, longer than the stamens, and a funnel-shaped stigma; the pericarp is a lanceolate legume, flat, blunt, one-celled, edged on each side with a thickish suture that does not open, opening by the bursting of the valves in the middle longitudinally, and dividing into two unequal, boat-shaped, parts; seeds few, oblong, compressed, furrowed, fixed to one of the sutures. There is only one species.

CAMPECHIANUM.

CAMPEACHY.

*Lignum Campechianum, species quædam Brasil.* Sloane, v. 2, p. 183, t. 231, f. 1, 2. *Spinosum, foliolis pinnatis, racemis terminalibus.* Browne, p. 221.

This tree grows naturally in the Bay of Campeachy, at Hopduras, and other parts of the Spanish West Indies, where it rises from sixteen to twenty-four feet high. The stems are generally crooked, and very deformed, and seldom thicker than a man's thigh.

The inner bark is red, and the wood is hard; branches sub-divided, flexuose, round, ash-coloured. Leaves pinnate; petioles alternate, patulous, round, smooth; leaflets four pairs, on very short petiolules, generally ob-cordate, entire, small, very smooth and shining, spreading in the day time, but at night upright, converging. Prickles strong, middling in size, above the petioles. Racemes axillary, simple, upright, the length of the leaves, solitary, many-flowered; flowers peduncled, numerous, small, pale yellow, on short, scattered, simple, coloured, peduncles: calyx bell-shaped at the base, and very small, the parts lanceolate, convex, reflex, purple; the bottom nectareous: petals ovate, blunt, equal, with short claws; anthers incumbent, revolute; germ lanceolate, on a short pedicel; stigma dilated, perforated.—It flowers in March and April, and ripens its seeds in July.—Sw.

This tree was introduced into Jamaica from Honduras by Dr. Barham, in 1715; and is at this time too common, as it has over-run large tracts of land, and is very difficult to root out. It makes a beautiful and strong fence against cattle. If pruned from the slower branches, it grows to a sizeable tree, and, when old, the wood is as good as that from Honduras. The trees are cut up into billets or junks, the bark and white sap of which are chipped off, and the red part, or heart, is sent to England for sale. It is chosen in the largest thickest pieces, sound, and of a deep red colour.

Logwood is used in great quantities for dyeing purple, but especially black colours. All the colours, however, which can be prepared from it, are of a fading nature, and cannot by any art be made equally durable with those prepared from some other materials. Of all the colours prepared from Logwood, the black is the most durable. Dr. Lewis recommends it as an ingredient in making ink. "In dyeing cloth (says he) vitriol and galls, in whatever proportions they are used, produce only browns of different shades: I have often been surprised that with these capital materials of the black dye I never could obtain any true blackness in white cloth, and attributed the failure to some unheeded mismanagement in the process, till I found it to be a known fact among the dyers. Logwood is the material which adds blackness to the vitriol and gall-brown; and this black dye, though not of the most durable kind, is the most common. On blue cloth a good black may be dyed by vitriol and galls alone; but, even here, an addition of logwood contributes not a little to improve the colour." Mr. Delaval, however, in his *Essay on Colours*, informs us, that, with an infusion of galls and iron filings, he not only made an exceeding black and durable ink, but also dyed linen cloth of a very deep black.

The seed is very perishable, soon losing its vegetative principle. The season for sowing it should not be too wet, otherwise it will rot in the ground. In the neighbourhood of Savanna-la-Mar are such quantities of it growing wild as to incommode the landholders extremely; occupying that district, as the oppopanax and cashaw have the southern parts of Middlesex county; but the logwood is so luxuriant and hardy, after it comes up, that it will over-run the other two, and starve their growth.

The smaller stems, if of good length, are made into hoops, where better materials are wanting. The wood gives a purple tincture by infusion, which is easily changed or heightened, by acid or alkalous mixtures. The bark and gum are gentle sub-astringents; but the last excels, and adds a sweetness to its virtue, which renders it more agreeable to the palate. It is found very efficacious in looseness; for, if two ounces of the chips are boiled in a quart of milk, and a quart of water, to one quart,

and a tea-cup full of this decoction be given every three hours, it seldom fails to cure a common diarrhoea.

The growth of this tree is so quick, that it will rise, in proper soils, to the height of ten feet in three years. If an advantage is proposed to be made by the wood, the seeds ought to be sown in swampy lands, such as those about Black River, and all the branches permitted to remain, which will be of great use, in augmenting the bulk of their stems.—Long, p. 754.

LOVE APPLES—See TOMATOES.

LOVE IN A MIST.

PASSIFLORA:

CL. 20, OR. 4.—*Gynandria pentandria.*

NAT. OR.—*Cucurbitaceæ.*

GEN. CHAR.—See Bull-Hoof, p. 123.

PETIDA. STINKING.

*Flos passionis folio hederaceo anguloso, fatido.* Sloane, v. 1, p. 229.  
*Vesicaria; florum involucris triphyllis, multifido-capillaribus.*—  
Browne, p. 327.

Leaves cordate-hairy; involucre capillary-multifid.

The stalks are round, woolly, and rise five or six feet high, when supported; sending forth pretty strong clavicles. The leaf is three-lobed, like ivy leaves, downy and soft, the middle lobe three inches long, and one and a half broad, the two side-lobes short, but broad. The flowers are on strong hairy peduncles, two inches long; calyx composed of slender hairy filaments, wrought like a net, (resembling those of *nigella damascena*) longer than the petals, and turning up round them; they are white, and of short duration. The fruit is yellow, inclosed in the netted calyx, and has a pleasant smell, though all the other parts of the plant has a disagreeable one when touched.—The fruit is about the size of a golden pippin, oblong-spheroidal, pedicelled, marked with three lines of a deeper colour, longitudinally; within it is silky white, membranaceous, containing numerous seeds, involved in an agreeable sweet-acid pulp. It flowers in the spring.

See BULL-HOOF—GRANADILLA—PASSION FLOWERS—WATER-LEMON.

No English Name.

LUDWIGIA.

CL. 4, OR. 1.—*Tetrandria monogynia.*

NAT. OR.—*Calycanthaceæ.*

So named in honour of C. G. Ludwig, professor of medicine at Leipsic.

GEN. CHAR.—Calyx a one-leaved, four-parted, perianth, superior, with spreading segments; corolla four-petaled, petals ob-cordate, spreading; stamens four awl-shaped filaments, with simple anthers; the pistil has a four-cornered germ, a cylindric style, and an obsoletely four-cornered, capitate, stigma; the pericarp. is a four-cornered capsule, inferior, four-celled, four-valved; seeds numerous, small.

small; the receptacle columnar, membranaceous, four-winged; wings in the angles of the partitions, seed-bearing on each side. One species is a native of Jamaica.

REPENS. CREEPING.

Leaves opposite, ovate; peduncles solitary, axillary; stem creeping.

This is an annual plant, and the *isnardia palustris* of Linneus, but by Swartz determined to be a species of this genus. The flowers are axillary, opposite, sessile, and green. It is frequent in the rivers of Jamaica, with petals, though they are fugaceous.

MACAW-BUSH—See TURKEY BERRIES.

MACAW-TREE.

COCOS.

CL. 21, OR. 6.—*Monæcia hexandria*.

NAT. OR.—*Palmae*.

GEN. CHAR.—See Cocoa-Nut Tree, p. 206.

ACULEATA PRICKLY.

*Palma tota spinosa major, fructu pruniformi.* Sloane, v. 2, p. 119.  
*Pinnis et caudice ubique aculeatissimis, fructu majusculo.* Browne, p. 344.

Aculeate-spiny, trunk fusiform; fronds pinnate; stripes and spathes spiny.

The great macaw-tree has a trunk as thick as the human body, with a swelling at foot, rising thirty feet high, with an ash-coloured bark, and very thick set with sharp black prickles, some longer some shorter, placed usually in rings. The pinnae of the fronds are very long, and the whole thick set with prickles. The fruit is as large as a crab-apple; under a green skin it has a thin, sweetish, astringent, pulp, and under that a nut full of white, sweet, edible, kernel. It is common in most savannas in Jamaica. The wood is of a black colour.—*Sloane*. The fruit is thus described by *Gærtner*: It is globular, flattened a little, about an inch in diameter, terminated by three acuminate, sessile, stigmas, and retaining the six-leaved calyx at the base: skin thick, coriaceous; pulp fibrous, succulent, finely fungose, and coriaceous, adhering to the nut; which is globular, sublenticular, of a stony substance, thick, one-celled, with three holes on the side, two of which are blind, and the third pervious. Seed single, sub-globular, flattish, or slightly depressed near the hole of the cell, netted all over with arched streaks, of a brown-bay colour.

The small macaw tree *Sloane* says grows to the thickness of a man's leg, rising about fifteen feet high, and is in every thing similar to the large kind. *Browne* says the

husks of the fruit of both are full of oil, and the nut black and shining. The oil is not inferior to, and by some thought to be, the real palm oil. The trunk is used for lathing, and the black seeds, about the size of a walnut, bear a fine polish, and are frequently made into beads. The small macaw tree is the *caudice aculeatissimo, pinnis ad margines spinosis, fructibus majusculis*, of Browne, p. 343; and the *palma spinosa minor, fructu pruniformi* of Sloane, v. 2, p. 121.

**Macaw-Tree**—So called from a large bird that feeds upon the fruit of this tree, which is of the palm-kind. There are two sorts of them, but they differ in nothing but the fruit; there is one bigger than the other. This tree is full of sharp prickles from its bottom to the top, and all the stalks of the branches, which are exactly like the common palm. It hath a black, flat, round, nut, in shape and bigness of what is called here the horse-eye bean, covered over when ripe with a yellow pulp, like the common small palm, which the macaw greedily swallows. The outside part of the body of the tree is excessive hard; of which the Indians make their bows, and several other useful things; but the inside is full of a soft pithy substance, like the cabbage-tree.—*Barham, p. 93.*

**MACR. REED**—See REED! MACE.

**MAD-APPLE**—See EGG-PLANT.

**MADRE DE CACAO**—See CACAO and BEAN-TREE.

**MAFOOTOO-WITHE**—See CACCONS.

**MAGUEY**—See SILK GRASS.

## MAHOE.

## HIBISCUS:

CL. 16, OR. 6.—*Monadelphina polyandria.* NAT. OR.—*Columnifera.*

GEN. CHAR.—See Changeable-Rose, p. 175.

1. ELATUS. HIGH.

*Malva arborea, folio rotundo, cortice in funes ductili; flore miniatissimo liliaceo.* Sloane, v. 1, p. 215, t. 134, f. 1, 2, 3. *Arborescens, foliis angulato-cordatis, flore amplo croceo, ligno violaceo.*—Browne, p. 284.

Leaves cordate-roundish, entire; peduncles very short, one-flowered; calyx ten-toothed.

Browne calls this the *mountain mahoe*, which grows into a large tree, having been sometimes found sixty feet high, and eight in circumference. It is frequent in the woods: The leaves stand at the ends of the branches on long footstalks, cordated, or almost round, about five inches in diameter, a little indented on the edges, soft, smooth, of a very dark green colour, having veins running from the footstalk as from a common centre. The flowers proceed from the ends of the branches, they are large, open, yellow, not unlike the yellow lily, (there is a variety with red flowers, in every respect resembling the tree with yellow). In some places it is known by the name of *tulip-tree*. The bark makes excellent ropes, and it is also accounted a good timber tree. The wood is of a dark olive colour, the bark pretty smooth, and the trunk tall

and straight. All the tender parts of the tree abound with a delicate mucilage, and might, no doubt, be used instead of the vango or zezegary. The *achania mahaviscus* is called by Browne the *shrubby mountain mahoe*.

## 2. TILIACEOUS. LIME-TREE-LEAVED.

*Malva arborea maritima, folio subrotundo minore acuminato subtus candido, cortice in funes ductili flore luteo.* Sloane, v. 1, p. 215, t. 134, f. 4. *Maritima, arborescens, diffusa; foliis orbiculato-cordatis, leniter crenatis, subtus cinereis.* Browne, p. 284.

Leaves cordate, roundish, undivided, acuminate, crenate; stem arboreous; outer-calyx ten-toothed.

This tree is frequent by the sea-side in many parts of Jamaica. Sloane calls it the *sea-mahoe*, or *mangrove*; and Browne the *mahoe*, or *bark-tree*. It has several stems, and rises commonly to the height of sixteen or eighteen feet. The leaves are smaller than those of the foregoing species, of a whiter-green colour, and a little pointed.—The flowers are also the same, but yellow; in every other respect these plants bear a great resemblance. The bark is also very tough, and not much inferior to either hemp or flax on many occasions; it is naturally white, and a fine, soft, filamentous texture; which must undoubtedly render it extremely fit for the paper mill. The negroes make ropes of it, which, tarred and well-twisted, would probably not be inferior to those made of hemp. All parts of the tree, especially the flowers, abound with a fine mucilage, and are both emollient and laxative.—*Sloane & Browne*. The flowers come in loose spikes at the ends of the branches, and are succeeded by short acuminate capsules, opening in five-cells, and filled with heart-shaped seeds. The inner bark and wood is very strong, and may be drawn off in flakes, and made into ropes. Dampier mentions, that privateers often made use of the bark of this tree for their rigging.

## 3. CLYPEATUS.

*Malva arborea, folio oblongo acuminato, veluto, dentato et leviter sinuato, flore ex rubro flavesciente.* Sloane, v. 1, p. 216, t. 135, f. 1.

Leaves cordate-angular; capsules turbinate, truncate, hispid.

This plant is called the *Congo mahoe*; it rises from six to twelve feet high, having a woody, upright, trunk, round, pubescent; branches sub-divided, stiff, upright, tomentose. Leaves alternate, acuminate, tooth-letted; nerved, hirsute, and somewhat scabrous; soft-tomentose underneath; petioles longer, stiff, round, tomentose. Peduncles from the terminating axils, upright, thicker than the petioles, stiff, long, round, white-tomentose, one-flowered; corollas pale, sometimes dusky yellow, or yellowish-carnation colour, according to Sloane; the outer calyx is ten-cleft, at the base; leaflets reflex, hirsute; inner one unequal, thick, five-parted; the three hinder parts upright, broad-ovate, acuminate, nerved, wrinkled, rough with hairs; petals unequal, the three hinder ones more erect, the two front ones bent down, united at the base, broad-lanceolate, blunt, thick, tomentose on the outside: filaments united above the middle; anthers oblong, small, fulvous; germ hirsute, ovate, depressed; stigmas red; capsule large, roundish, furrowed, extremely hirsute, with ten blunt angles; seeds roundish, large, whitish. It grows but rarely in the island of Jamaica.

in coppices near the coast. Its common name is *Congo mahoe*, the negroes affirming that it came originally from Africa.—Sw. Sloane says it grew on the Red Hills very plentifully.

See CHANGEABLE-ROSE—INDIAN SORREL—MUSK-OCHRA—OCHRA.

MAHOGANY.

SWIETENIA.

CL. 10, OR. 1.—*Decandria monogynia*. NAT. OR.—*Trihilata*.

This generic name was given in honour of G. L. B. a Swieten, at whose persuasion the Empress Maria Teresa founded the botanic garden at Vienna.

GEN. CHAR.—Calyx a one-leaved perianth, five-cleft, (rotated) obtuse, very small, deciduous; corolla five-petals, much longer than the calyx, ob-ovate, obtuse, concave, spreading; nectary one-leaved, cylindric, somewhat shorter than the petals; mouth ten-toothed; the stamens ten filaments, very small, inserted below the teeth of the nectary; with oblong, erect, anthers; the pistil has an ovate germ; style awl-shaped, erect, length of the nectary; stigma headed, flat; the pericarp is an ovate capsule, large, woody, one-celled, at the top five-celled, five-valved; valves opening at the base; seeds very many (more than fifty), imbricate, compressed, oblong, ob-ovate, having a leafy wing; receptacle large, five-cornered. One species is a native of Jamaica.

MAHAGONI MAHOGANY.

*Folius pinnatis, floribus sparsis, ligno graviori.* Browne, p. 158.

Leaves pinnate, about four-paired; leaflets ovate-lanceolate, equal at the base; panicles axillary.

The mahogany is a lofty and very branching tree, with a wide handsome head; leaves reclining, alternate, shining, eight inches long, numerous on the younger branches; leaflets for the most part four-pairs, but often three, seldom five, without any odd one, falcate-lanceolate, quite entire, acuminate, bent in backwards, petioled, opposite, an inch and a half long; racemes sub corymbed, with about eight flowers in each, axillary, solitary, two inches long; flowers small, whitish.—*Jacquin*. Capsule large, (sometimes attaining the size of a child's head) woody, ovate, of a smoky-rufescent colour (or ferruginous), towards the top five-celled, but in other parts widely one-celled, five-valved; valves thick, opening from the base, caducous, covered within by a thick flexile, coriaceous, lamina, exactly equal to them in size. Receptacle central, free, woody, five-cornered, from a narrower base widening much, and thickening upwards, but narrowing again at the point, and, on each side of the pyramid, having a double row of very small scars, into which the seeds are inserted. Seeds numerous, connected into five bundles, imbricate downwards, compressed, yellowish-rufescent, or cinnamon-coloured, having a nucleus below, but ending above in a long membranaceous wing.—*Gartner*. Linneus remarks, that this tree has a great affinity with *cedrela*, or the common cedar of Jamaica, and the capsules are nearly alike, but those of the cedar much smaller in every respect; the germ and the fruit are also very similar.—The flower agrees in many respects with that of *melia*.

This



This graceful and valuable tree, which furnishes a constant share towards the annual exports from the island, grew formerly in very great abundance along the coast; but having been almost exterminated from those parts, in process of time, it is at present found chiefly in the woodland mountainous recesses, where vast quantities of it still remain, particularly in the uncultivated districts of Clarendon, and the leeward parishes.

It thrives in most soils, but varies in its grain and texture. What grows in rocky ground is of small diameter, but proportionably of closer grain, heavier weight, and more beautifully veined. What is produced in low, rich, and moist, lands, is larger in dimensions, more light and porous, and of a paler complexion. This constitutes the difference between the Jamaica wood, and that which is collected from the coast of Cuba and the Spanish Main; the former is mostly found on rocky eminences; the latter is cut in swampy soils, near the sea-coast. The superior value of the Jamaica wood, for beauty of colouring, firmness, and durability, may therefore be easily accounted for; but, as a large quantity of balks and plank is brought from the Spanish American coasts to this island, to be shipped from thence to Great Britain, the dealers are apt to confound all under the name of Jamaica wood, which, in some measure, hurts the credit of this staple production. The tree grows tall and straight, rising often sixty feet from the sprig to the limbs; the foliage is a beautiful deep green; and the appearance, made by the whole tree, so elegant, that none would be more ornamental for an avenue, or to decorate a plantation. It generally bears a great number of capsulæ in the season. The flowers are of a reddish or saffron colour; and the fruit of an oval form, about the size of a turkey's egg. It is easily propagated from the seeds, and grows rapidly. Some of them have reached to a monstrous size, exceeding one hundred feet in height, and proportionably bulky. One was cut a few years since in St. Elizabeth's, which measured twelve feet in diameter! and cleared to the proprietor above 500*l.* currency. The value of it, either for sale, for use, or beauty, being so great, it is amazing that it is not more cultivated on waste lands, of which every proprietor has some within his range. Those, particularly, who have families, might by this means apply the worst part of their tracts to produce a future fortune for their younger children.—We may imagine the plenty of it in former times here, when it used to be cut up for beams, joists, plank, and even shingles. But it is now grown scarce, within ten or twelve miles from the sea-coast; and must every year become still scarcer, and consequently dearer, unless nurseries, or plantations, are formed of it in places where the carriage is more convenient for the market.

In felling these trees, the most beautiful part is commonly left behind. The negro workmen raise a scaffolding, of four or five feet elevation above the ground, and hack off the trunk, which they cut up into balks.

The part below, extending to the roots, is not only of largest diameter, but of a closer texture than the other parts, most elegantly diversified with shades or clouds, or dotted, like ermine, with black spots; it takes the highest polish, with a singular lustre, so firm as even to reflect objects like a mirror. This part is only to be come at by digging below the spur to the depth of two or three feet, and cutting it through; which is so laborious an operation, that few attempt it, except they are uncommonly curious in their choice of the wood, or to serve a particular order. Yet, I apprehend, it might be found to answer the trouble and expence, if sent for a trial to the British market; as it could not fail of being approved of beyond any other wood, or even tortoise-shell, which it most resembles. It seeds in May.—*Long.*

The

The first use to which mahogany was applied in England, was to make a box for holding candles. Dr. Gibbons, an eminent physician in the latter end of the seventeenth and beginning of the eighteenth century, had a brother, a West India Captain, who brought over some planks of this wood as ballast. As the doctor was then building him a house in King-street, Covent-Garden, his brother thought they might be of service to him. But the carpenters, finding the wood too hard for their tools, they were laid aside for a time, as useless. Soon after, Mrs. Gibbons wanting a candle-box, the doctor called on his cabinet-maker (Wollaston, in Long-Acre) to make him one of some wood that lay in his garden. Wollaston also complained that it was too hard.—The doctor said he must get stronger tools. The candle-box was made and approved; insomuch, that the doctor then insisted on having a bureau made of the same wood, which was accordingly done; and the fine colour, polish, &c. were so pleasing, that he invited all his friends to come and see it. Among them was the Duchess of Buckingham. Her Grace begged some of the same wood of Dr. Gibbons, and employed Wollaston to make her a bureau also; on which the fame of mahogany and Mr. Wollaston was much raised, and things of this sort became general. This account was given by Henry Mill, Esq. a gentleman of undoubted veracity.

The following preparation is quoted in Dancer's Medical Assistant, as binding or astringent:

Boil an ounce of the shavings of mahogany in two pints of water, till one half is wasted. Dose from two to four table-spoonfuls frequently, in diarrhoea or looseness. *Hughes's Medical Facts and Observations, vol. 6.*

Dr. Wright observes, that the bark of the boughs of mahogany is very like the Peruvian bark in colour as well as in taste, but has more bitterness. Mahogany bark, infused in wine or spirits, makes an elegant tincture, which resembles the tincture of the best jesuits bark, for which it is often substituted; and he saw the powder administered in intermittents with success, when the Peruvian bark could not be had.

Dr. Roxburgh, of Madras, has discovered a new species of mahogany, and has sent home a good deal of the bark: he assures us it is superior in virtue to the Peruvian.—Its sensible qualities are exactly the same as the bark of the mahogany tree of Jamaica. —Wright.

#### MAIDEN HAIR.

#### ADIANTUM.

CL. 24, OR. 1.—*Cryptogamia filices.* NAT. OR.—*Filices.*

GEN. CHAR.—Fructifications assembled in oval spots, at the end of the fronds, which are turned back; or at the reflex tip of the frond underneath. Of this fourteen species have been discovered in Jamaica.

*The following have compound fronds:*

1. *RADIATUM.* RAYED.

*Ramosum, ramis simplicibus, summo caule radiatis.* Browne, p. 88. Ad. 6.

Frond digitate; leaflets pinnate; pinnae one-flowered.

Browne

Browne calls this the smaller *maiden-hair* with radiated branches. This elegant little plant rises by a simple stalk to the height of six or eight inches, and then divides into five or more simple branches, disposed in a radiated expanded form; which are sustained, as it were, by a few simple leaves, placed in the manner of an umbrella or common cup under their insertions. The leaves are small, and disposed in a pinnated order.—*Browne*.

2. SERRULATUM. SERRATE-LEAVED.

*Trichomanes majus, nigrum, pinnis leviter dentatis trapezii figura.*—

Sloane, v. 1, p. 81, t. 35, f. 2.

Fronds bi-pinnate, pinnules deltoid-oblong, serrate; fructifications solitary, superior.

This rises about eight inches; the footstalk black and shining, sometimes hairy, and three inches long; the pinnules are alternate, very close, trapezium-shaped, dark-coloured, without prickles. It has some small jags on the edges, which, on the upper side, turns into a ferruginous welt of seed, when it does not appear serrated. It grew on the banks of the Rio D'Oro, and other rocky, inland, woody parts.—*Sloane*.

3. PUMILUM. DWARF.

*Minium erectum simplex, foliis trapezoidibus sub-imbricatis.*—

Browne, p. 87. Ad. 1.

Frond pinnate; stipe capillary; pinnae alternate, roundish-serrulate, the uppermost larger, trapezium-shaped; fructifications interrupted.

The small, erect, undivided, *adiantum*, or maiden-hair, seldom rises above two or three inches from the root; its leaves and stalk are very delicate, and the fructifications but few. It grows chiefly in dry and rocky places.—*Browne*.

4. MACROPHYLLUM. LARGE-LEAFED.

*Trichomanes majus nigrum, pinnis trapezii figura latissimis tenuibus.*

Sloane, v. 1, p. 81. *Simplex aut vix divisum, caule tereti, foliis amplis triangularibus impetiolatis.* Browne, p. 87. Ad. 2, t. 38, f. 1.

The large-leafed undivided maiden-hair grows chiefly in moist and shady places; its stalk is seldom branched or divided, and its leaves are commonly from one to two inches in length, and about one and a quarter in breadth.—*Browne*.

5. DELTOIDEUM. DELTOID-LEAVED.

Frond pinnate; pinnae alternate, deltoid-obtuse, the uppermost triangular; fructifications continued above and in front.—*Sw*.

*The following have decompound fronds:*

6. VILLOSUM. HAIRY.

*Adiantum nigrum maximum, non ramosum, pinnis crebris, majoribus, crassis, et trapezii in modum figuratis.* Sloane, v. 1, p. 93, t. 55, f. 1. *Simpliciter ramosum, foliis majoribus, caule hirsuto.*

Browne, p. 87. Ad. 4.

Fronds bi-pinnate; pinnae rhombed, fructifying before and without; stipe villous.

The hairy-stalked *adiantum* grows to the height of two feet; the leaves large and open. The stem black, strong, triangular, covered with a hairy ferruginous mossy substance; the fronds proceed from it about a foot from the ground; the pinnae alternate; peduncles an inch long, and about half as broad, the figure of a trapezium. It grew in a shady gully near St. Jago de la Vega. Piso recommends this plant for expectorating tough phlegm.—Sloane.

## 7. MICROPHYLLUM. SMALL-LEAVED.

*Adiantum nigrum ramosum minus, ramulis surculis et pinnulis raris, minimis, subrotundis.* Sloane, v. 1, p. 98, t. 13, f. 2.

Frond bi-pinnate; leaflets alternate, oblong-obtuse, crenate, the lowest pinatifid.

This rises nine inches, having black stripes covered with a rusty moss. Pinnules small, distinct, dark green. There is a considerable defect between some of the pinnules, being variously sinuated or cut in on the edges. It grew among rocks near the river at St. Jago de la Vega.—Sloane.

## 8. STRIATUM. STRIATED.

Frond bi-pinnate; pinnules rigid, sickled-ovate; fructifications superior, interrupted; stipe round, rough.—Sw. Pr. 135.

## 9. STRICTUM. STIFF.

Frond bi-pinnate; pinnae four-cornered, fastigate-erect; pinnae alternate, polished, equise; fructifications superior, continued.—Sw. Pr. 135.

## 10. DENTICULATUM. TOOTHED.

Fronds decompose; pinnae alternate, trapezoid, acuminate-crenate; notches tooth-letted; fructifications superior, interrupted.—Sw. Pr. 135.

The following have super-decompose fronds:

## 11. ACULEATUM. PRICKLY.

*Filix ramosa major, caule spinoso, foliis seu pinnulis rotundis, profunde laciniatis, seu cerefolii foliis.* Sloane, v. 1, p. 99, t. 67.—  
*Plavum ramosissimum, aculeatum, ramulis et frondibus tenuissimis.* Browne, p. 89. Ad. 11.

Pinnae palmate, many-flowered; stipe prickly.

This has a long root, towards the top ferruginous-mossy; from which rise several footstalks, cornered on one side, round on the other, of the bigness of a swan's quill, of a grey colour. The plant is much divided, and the stalks and branches furnished with a great number of short recurved prickles. The branches are opposite and slender, the pinnae alternate, the leaflets small, and deeply crenate, of a yellowish-green colour. This grows in tufts, and is found in great abundance in Above Rocks, and many other parts of the island.

## 12. TRAPEZIFORME. RHOMB-LEAVED.

*Adiantum nigrum, ramosum, maximum, foliis majoribus trapezii in modum figuratis.* Sloane, v. 1, p. 98, t. 59. *Erectum majus in-*  
*ordinate-*

*ordinate ramosum, foliis amplioribus trapezoidibus cum acumine; caule, ramis et petiolis atro nitentibus.* Browne, p. 88. Ad. 8.

Leaflets alternate; pinnae rhomboid, gashed, fruit-bearing on each side.

This plant resembles the following (*tenerum*) in both form and appearance, but grows to a more considerable size, and is often observed to be half an inch or more round the stalk, which is black, shining, and rises four or five feet high, making a beautiful appearance.—*Sloane & Browne*. The syrup of this plant is like the syrup of maiden-hair in Europe.—*Dancer's Med. As.*

13. TENERUM. TENDER.

*Erectum inordinate ramosum, caule tereti, ramulis et petiolis, atro nitentibus.* Browne, p. 88. Ad. 7.

The smaller-branched maiden-hair rises by a shining, black, branched, footstalk, the height of fourteen or eighteen inches. It grows in shady places, and is plentifully supplied with leaves, which fall off with great ease when the plant is dried.—*Browne*.

14. FRAGILE. BRITTLE.

Frond super-decompound, bi-pinnate at top; pinnae ob-ovate, wedge-shaped, entire; fructifications interrupted.—*Sw. Pr.* 135.

Browne says all the species of *Adiantum* are light sub-astringent vulneraries, and may be administered with great propriety in all relaxations and weaknesses of the fibres; in purulent consumptions, and in the ulcerated or relaxed state of the glands, especially those of the breast, as well as in most cutaneous diseases.

MAIDEN-PLUM TREE.

COMOCLADIA.

Cl. 3, OR. 1.—*Triandria monogynia.* NAT. OR.—*Terebintaceæ.*

GEN. CHAR.—Calyx a one-leafed perianth, three-parted, spreading, coloured, divisions roundish; the corolla has three petals, ovate, acute, flat, very spreading; the stamens three filaments, subulate, shorter than the corolla, with roundish incumbent anthers; the pistil has an ovate germ, no style, stigma obtuse, simple; the pericarp. an oblong drupe, crooked, marked above with three dots; the seed a membranaceous nut, the figure of the drupe. Two species are natives of Jamaica.

1. INTEGRIFOLIA. ENTIRE-LEAVED.

*Prunus racemosa, caudice non ramoso, alata fraxini folio non crenato-fructu rubro subdulci.* Sloane, v. 2, p. 131, t. 222, f. 1. *Caudice simplici quandoque brachiato, fronde comosa pinnata; floribus confertis sessilibus, racemis alaribus.* Browne, p. 124.

Leaflets entire.

This is sometimes called *burnwood* or *papaw-wood*, and grows very commonly in Jamaica, rising to the height of from twelve to sixteen feet, but never to any considerable thickness. About the top it is furnished with many oval pinnated leaves, like

a frond, having frequently ten pairs of leaflets, which are small next the stem, and increase in size as they approach the centre, whence they again diminish towards the point, and end in an odd one, the pairs of leaflets at both extremities being the smallest; the whole being from two to three feet long. The pair of leaflets next the point are opposite, but the rest alternate, gradually receding from each other as they approach the stem, where they are about half an inch distant. The centre leaflets are about six inches long and two and a half broad, those close to the stem not half the size. They are ovate-lanceolate, acuminate, slightly wrinkled by the transverse veins, the edges a little revolute, standing on very short petioles. From the axillas hang loose paniced racemes a foot and a half in length, divided into many partial, lateral, alternate, racemes, the whole forming an ample panicle. The flowers are very numerous, small, sessile, without scent, of a red colour; many of them have the calyx and corolla four-parted.

On examining the blossoms of one of these trees they were found as follow: When expanded they were not bigger than a common pin's head; the calyx three small round leaves; corolla three triangular petals, larger than the cup, and erecto-patent; stamens three erect very short filaments, shorter than the calyx, and placed one between each petal; and there appeared a small nectareous gland between each stamen; anthers erect, testiculate; germ very small and trigonal; the styles very short, three in number, and capitated. In the ripe fruit the vestiges of the style may be perceived. A tree examined was found to have all the blossoms male: the perianth, corolla, stamens, and anthers, in form and number, exactly like those of the hermaphrodite flowers; but, instead of a germ, was a trigonal, short, concave, nectareous, gland, with unequal margins.

This tree is propagated by seeds or cuttings; stakes or posts of it put into the ground speedily vegetate. The fruit is eatable, but not inviting; and the wood hard, of a fine grain, and reddish colour. This plant is so similar in habit to the *spathelia simplex*, (see mountain pride) that it is difficult to distinguish them from each other when not in flower, for which reason they have both been confounded by the name of *maiden-plum*. Jacquin observes that the whole tree abounds in a watery-sap, slightly glutinous, which grows black in the air, and dyes the hands a deep black that can scarcely be washed out.

## 2. DENTATA. TOOTHED.

Leaflets, spiny-toothed.

This species is very common in Jamaica, and some of them have been observed which bore female, some male, and some hermaphrodite, flowers. It is like the foregoing species; the leaves are crenate, somewhat pubescent; the racemes many and terminal. "Leaflets from six to ten, oblong, acuminate, spiny-toothed, veined at the back, and sub-tomentose. Juice milky, glutinous, turning very black; not to be washed from the skin or cloth. If the tree be ever so slightly wounded, it has a strong smell of dung. The natives have a notion that it is dangerous to sleep under it."—*Jacquin*.

MAJORE OR MACARY BITTER.

PICRAMNIA.

CL. 22, OR. 5.—*Dioclea pentandria*.—*Triandra digynia*.—Sw.

This.

This generic name is derived from two Greek words signifying bitter shrub, the whole plant being remarkably bitter.

GEN. CHAR.—Male calyx a one-leafed perianth, three or five-parted; segments lanceolate, erect; corolla three or five petals, lanceolate, from erect spreading, longer than the calyx; stamens three or five filaments, awl-shaped, approximating at the base, erect, longer than the corolla; anthers ovate, twin.—The female calyx as in the male, permanent; corolla the same; the pistil has an oblong germ, somewhat compressed; styles two, short, recurved, permanent; stigmas simple, acute; the pericarp an ovate-roundish berry, two-celled; seeds two in each cell, ovate-oblong. Swartz describes three stamens, a three-parted calyx, and three-petaled corolla.

#### ANTIDESMA.

*Berberis fructu fruticosa racemosa; fraxini folio alato, fructu nigro-dipyreno.* Sloane, v. 2, p. 101, t. 208, f. 2. *Fruticosa, ramulis teretibus, racemis laxis terminalibus.* Browne, p. 123.

Racemes very long; flowers three-stamened.

This tree is small, with an upright, weak, even, trunk; branches sub-divided, rod-like, spreading, bending down, smoothish, with an ash-coloured bark. Leaves pinnate, a foot long or more; leaflets petioled, alternate, elliptic, with a blunt top, entire, nerved, and veined, smooth, bent down each way by the side of the petiole.—Petioles roundish, spreading, (rising from a swelling joint) smooth; petiolets very short, pubescent, brownish, (also from a swelling joint). Racemes terminating, from one to two feet in length, filiform, striated, loose, pendulous, many-flowered; flowers alternately conglomerate, peduncled, whitish-green; peduncles from five to seven, clustered, whitish, longer than the flowers. Males deciduous. Calyx three-parted. Petals three, filaments three, anthers rufous. Females the same size with the males. Berries oblong, the size of a gooseberry when ripe, two-celled, cells two-seeded, at first scarlet, then black. It is looked upon as anti-venereal, and the negroes commonly use an infusion of it in colic. An infusion of the bark is deemed an excellent remedy in intermittent fevers, and in affections of the bowels and stomach. It flowers in August, and the fruit is ripe in November.—Sw.

This plant, sometimes called *Ton's Bontein's bush*, and *old woman's bitter*, is common in coppices and the skirts of woods in Jamaica, and all parts of it have a bitter taste. That of the leaves is a mixture of bitter and sweet. The fruit is commonly divided into two cells, by a thin septum, to which the seeds adhere, which are of a chestnut colour. Sometimes there is but one cell and one seed, and at other times two seeds in each cell. The fruit is, before it turns mellow, of a lovely shining red, but ripens into a very black colour, having a soft yellowish pulp. It is about three-fourths of an inch long. The seeds vary in form agreeable to their number in the cells. When there is but one it is of an ovate gently depressed form; when there are two they resemble coffee seeds; when three the one is like the coffee seed, the other two trigonal; when four they are all trigonal. The tree sometimes rises to the height of twenty feet, when it can lean conveniently upon any support. The bark is brown; the branches very few. The common height about eight or nine feet.

This is

This admirable plant hath its name from Majoe, an old negro woman so called, who, with a simple decoction, did wonderful cures in the most stubborn diseases, as the jaws, and in venereal cases, when the person has been given over as incurable by skilful physicians, because their Herculean medicines failed them; viz. preparations of mercury and antimony. It is also called Macary bitter, from its growing in great plenty in the bay of Macary, and being a very bitter plant. I met with some of it growing in a skirt of wood near St. Jago de la Vega, in Jamaica: It was but a small tree that I saw; with winged leaves much like the English ash; the flower I never saw; but the fruit is in clusters, in shape and bigness of the Canary grape, first green, then of a bright scarlet, and when full ripe as black as a damascene plumb: It hath a yellowish pulp, with a sub-bitter taste; then a large stone, with a kernel or seed in it, all very bitter. This plant was first shewn to me by a planter, who had done many excellent cures amongst his negro slaves, in old inveterate stubborn ulcers, and that by only boiling the bark and leaves, or flowers and fruit if they happen to be on the tree, when wanted to make use of, giving them plentifully to drink, and washing the sores with some of the decoction; then laying over them a leaf of the jack in the bush, until their sores were healed.—Barham, p. 96.

The plant, upon repeated trials, has been found deserving of the high encomium passed upon it by Barham. A wine-glass full of a strong decoction of the leaves is recommended as a dose for a strong adult. The leaves become purple when they begin to dry.

MAIZ—See GREAT-CORN.

No English Name.

MALAXIS.

CL. 20, OR. 1.—*Gynandria diandria*. NAT. OR.—*Orchideæ*.

This is derived from a Greek word signifying to soften.

GEN. CHAR.—There are no spathes nor perianth; the corolla has five petals—three outer, of which two upper one lower, lanceolate, blunt, spreading; two inner linear, acute, reflex about the germ; nectary in the middle of the corolla, less than the petals, concave, with convex margins, cordate, acuminate behind, bifid in front; the stamens are two ovate anthers, scarcely pedicelled, inserted into the pitcher of the pistil at the edge, sitting on two little excavations at the bottom; the pistil has a pedicelled germ, somewhat cylindric, inferior; style a pitcher in the middle of the nectary, halved, very short, spreading, bearing the stamens on its hinder margin; stigma before the little excavations, near the anthers; the pericarp is a pedicelled capsule, oblong, three-keeled, one-celled, opening under the keels, cohering at top and bottom; seeds extremely minute. There are two species, discovered in Jamaica by Swartz.

1. SPICATA. SPIKED.

Scapes quadrangular; flowers in spikes.

2. UMBELLIFLORA. UMBEL-FLOWERED.

Scape quinquangular; flowers umbelled.

MALLOWS



## MALLOWS.

## MALVA.

CL. 16, OR. 6.—*Monadelphia polyandria*. NAT. OR.—*Columnifera*.

GEN. CHAR.—Calyx a double perianth; outer three-leaved, narrower; inner one-leaved, half five-cleft; corolla five-petaled, ob-cordate, præmorse, flat, fixed to the tube of the stamens at the base; stamens numerous filaments, uniting below into a tube, seceding and loose at the top and surface of it; anthers kidney-form; the pistil has an orbicular germ, a cylindric short style; stigmas very many, bristly, the length of the style; the pericarp is a roundish capsule, composed of very many cells, two-valved, placed in a whorl about a columnar receptacle, finally falling; seeds solitary, very seldom two or three, kidney-form. Two species are natives of Jamaica, the *rotundifolia* is an exotic.

## 1. ROTUNDIFOLIA. ROUND-LEAFED.

Stem prostrate; leaves cordate-orbiculate, obsoletely five-lobed; fruiting peduncles declining.

This plant was introduced by a Captain Jones, who planted it in the mountains of Liguanea, and it has thriven well in Jamaica. It is a native of Europe. Its emollient qualities are well known. The *capensis*, or cape, and the *crispa*, or curled, mallow have also been introduced.

## 2. SPICATA. SPIKED.

*Althea spicata betonica folio, flore luteo, habitiori spica*. Sloane, v. 1, p. 219, t. 148. *Assurgens, subvillosa, viminibus tenuioribus lentis floribus sessilibus; spicis oblongis terminalibus et alaribus*.—Browne, p. 282.

Leaves cordate, crenate, tomentose; spikes oblong, rough-haired.

Browne calls this the erect mallows, with long slender branches. Stem pale green; two or three feet high; leaves almost round, an inch and quarter long, and three-quarters of an inch broad at the base, pale green, smooth, on petioles three-fourths of an inch in length. The tops of the twigs and branches, for the length of an inch, are thick set in a spike with orange-coloured flowers, in very hirsute calyxes. It is very common in cleared, barren, rocky, lands.—Sloane.

## 3. COROMANDELIANA. COROMANDEL.

Leaves oblong, or cordate-serrate; peduncles axillary; flowers glomerate; arils three-cusped.

Stem a foot high, round, hispid; branches leafy, round, hispid; leaves alternate, oblong, sometimes cordate at the base, obtuse-hispid; petioles round, longer, hispid. Peduncles solitary, upright, shorter than the petiole; flowers terminating, in a sort of spike, sessile, yellow; leaflets of the outer calyx linear; styles ten to sixteen. Fruit hirsute; with two cusps of the arils in a pair, the third superior. It is an annual plant, and common in Jamaica among grass.—Sw.

See INDIAN MALLOW and MARSH-MALLOW.

MAMMEE.

## MAMMEE SAPOTA.

## ACHRAS.

CL. 6, OR. 1.—*Hexandria monogynia.* NAT. OR.—*Dumosa.*

GEN. CHAR.—See Bully-Tree, p. 124.

## MAMMOSA.

*Malus persica maxima foliis magnis, integris, longis, fructu maximo oblongo, scabro, ossiculo partim rugoso, partim glabra.* Sleane, v. 2, p. 124, t. 218. *Fructu maximo ovato, seminibus paucioribus oblongis turgidis.* Browne, p. 201.

This genus of plants does not seem to be yet well understood; the naseberry and this plant are often confounded together, as well as the naseberry bullet tree. The following are the characters of the mammee-sapota: Calyx eight or nine roundish leaves, placed scalewise, the exterior ones the smallest, increasing in size inwards, the internal ones coloured; corolla monopetalous and bell-shaped, longer than the cup, it has five divisions, somewhat emargined, roundish, concave and erect; at the base of each division is a subulated denticle, in size and form resembling the stamens. Stamens are five subulated filaments, placed alternate with the denticles, and shorter than the corolla; anthers sagittated and versatile; germ ovate, striated and hairy, and, when cut, appears to have five cells, containing one seed; the style is subulated, equalling the corolla in length; the stigma obtuse. The ripe fruit has seldom more than one seed, rarely two, the other cells being obliterated.

This tree has a straight-trunk, thirty feet high, and about a foot in diameter; bark ash-coloured, furrowed, and rough. The branches are equally spread, shooting about twelve feet from the ground, and throwing out regular rising branchlets, in circles, at equal distances, whose ends are covered with leaves set all round, without any order, standing on inch-long round petioles; they are from ten inches to a foot long, revolute, narrow at the base, and widening to the end, where they are rounded, and about four inches broad; the mid-rib is very strong, as well as the nerves, which are sometimes opposite, sometimes alternate, and numerous. The whole tree has a pyramidal appearance. The flowers come out from the branches, and are of a cream-colour.—The fruit is four or five inches in diameter, tapering to both ends, covered with a rough russet-coloured bark. The pulp is dark yellowish, soft, sweet, tasting not unlike a very ripe English pear, to which it is also somewhat similar in consistence. It makes excellent marmalade, which, being binding and astringent, is recommended in fluxes. The stones, when distilled, give to spirits a ratafia flavour; and they are a pleasant ingredient in making the cordial called *noyauux*. Bruised and infused in rum, they contribute to give it an agreeable flavour. The fruit eaten raw is of an aperient quality.

This is a very beautiful tree, full of fine branches and long green leaves; but seldom grows above fifteen or twenty feet high. Its fruit is almost as big, and in shape of, a man's heart, only a little longer, and sharper at the lower end; the outside is of a brown or russet colour, and very rough; the inside is of a darkish-red soft pulp, and luscious eating, like a mamulet; in which are contained two, sometimes three, long cones or stones, thick in the middle, and sharp at both ends, one side rough, and would make good nutmeg-graters, and the other side smooth, black, and shining as possible. It is said, those that plant the stone or seed of these trees never live long enough.

enough to eat of the fruit of them, being forty or fifty years, as they say, before they bear: I have seen one, that a person told me he had planted above twenty years ago, and there was no sign of its bearing then.—*Barham, p. 98.*

## MAMMEE-TREE.

## MAMMEA.

CL. 23, OR. 1.—*Polygamia monoecia (or diœcia).* NAT. CR.—*Guttiferae.*

GEN. CHAR.—Hermaphrodite calyx a one-leaved perianth, two irregular parts, occasioned by the swelling of the petals, concave, coriaceous; corolla four roundish concave petals, spreading very much, sub-coriaceous, longer than the calyx; stamens numerous filaments, bristle-shaped, erect, very short, inserted into the receptacle; ending in oblong, blunt, erect, anthers; the pistil has a roundish depressed germ; a cylindric, erect, style, longer than the stamens, permanent; stigma capitate, convex, (the germ and style have the figure of a common bottle); the pericarp is a roundish, fleshy, berry, very large, acuminate with part of the style, with a coriaceous rind, one-celled; seeds four, sub-ovate, rugged, distinct from the flesh. Male on the same or a different tree—calyx, corolla, and stamens, as in the hermaphrodite. There is only one species, a native of Jamaica.

## AMERICANA.

## AMERICAN.

*Malus persica maxima, foliis rotundioribus splendidibus glabris, fructu maximo, scabro, rugoso, subrotundo, pulpa dura sublutea, unum vel plura ossicula filamentosa cingente.* Sloane, v. 2, p. 123, t. 217, f. 3. *Maxima foliis longioribus, cortice sulcato cinereo: and Foliis ovalibus nitidis, fructu subrotundo scabro.* Browne, p. 249.

This is a tall upright handsome tree, with a thick spreading elegant head. It has a long downright tap root, which renders it very difficult to transplant. Young branchlets quadrangular. Leaves oval or ob-ovate, quite entire, blunt, shining, leathery, firm, with parallel transverse streaks, on short petioles, opposite, from five to eight inches in length. Peduncles one-flowered, short, scattered over the stouter branches; flowers sweet, white, an inch and a half in diameter; the calyx often trifid, with a five or six-petaled corolla, which arises from one of the segments or petals being cut.—Fruit roundish or obsoletely three or four-cornered, according to the number of seeds; one or two of which are frequently abortive, varying in size from three to seven inches in diameter. It is covered with a double rind, the outer leathery, a line in thickness, tough, brownish-yellow, divided by incisures longitudinally decussated; the inner thin, yellow, adhering strongly to the flesh, which is firm, bright yellow, has a pleasant singular taste, and a sweet aromatic smell; but the skin and seeds are very bitter and resinous. It is eaten raw alone, or cut in slices with wine and sugar, or preserved in sugar. In Martinico they distil the flowers with spirit, and make a liquor, which they call *eau creole*. The English and Spaniards call the fruit *mammee*, and the French *abricot-sauvage*, from the yellowness of the pulp, like that of abricot.—*Jacquin.*—Swartz remarks that the tree which bears hermaphrodite flowers is very lofty, but that the male trees are smaller. Browne has given the hermaphrodite and male trees as different species; both of them abound with a strong resinous gum, and are good timber trees.

trees. The leaves and younger branches of both are full of a yellow milky juice. The pulp of the fruit is milky when ripe, and turns yellowish like a carrot, to which it has a resemblance in taste and substance, when not sufficiently mellowed. It generally contains three or four rugged, oblong, seeds. The gum of this tree is generally used by the negroes for extracting chigoes from their feet, for on being applied to the part it draws them out bag and all. Melted down with a little lime-juice, and dropped into sores, it is effectual in destroying maggots at the first dressing. A bath of the bark hardens the soles of the feet like the mangrove bark.

MANATEE GRASS—See TURTLE GRASS.

### MANCHIONEAL-TREE.

### HIPPOMANE.

CL. 21, OR. 8.—*Monoclea monadelphia.*

NAT. OR.—*Tricocce.*

GEN. CHAR.—See Gum-Tree, p. 361.

MANCHINELLA.

MANCHIONEAL.

*Ingladi affinis arbor julifera, lactescens, venenata, pyrifolia, mancanillo Hispanis dicta.* Sloane, v. 2, p. 3, t. 159. *Arboreum lactescens, ramulis ternatis, petiolis glandula notatis; floribus spicatis, mixtis.* Browne, p. 351.

Leaves ovate, serrate, biglandular at the base.

This is a large tree, with a gray, even, thick, milky, bark, and a hard wood, which is yellowish, with gray or blackish veins. Leaves rounded at the base, acuminate, crenate, two inches in diameter, thickish, dark green, shining, paler underneath, milky nerved; on petioles from twelve to fifteen lines in length, margined. Flowers in aments or spikes: aments clustered, terminating, from one to two inches in length; males several, females few, distinct, inserted at the base, or quite distinct from the males, and lateral. Male flowers three or four in an ament; common perianth one-leaved, blunt; proper two-parted, turbinate, with blunt minute teeth. Filaments one, two, three, or four, connate at the base, longer than the calyx; anthers roundish, twin. Females, perianth trifid, minute, caducous; style none; stigmas three, two-parted, acute, reflex. Fruit a drupe, the colour, size, and form, of an apple, smooth, with a soft spongy flesh, a sweet smell, and an insipid caustic taste. Within is a nut with from three to five cells, with a single seed in each, which is three-cornered, covered with a shining silvery skin, and having the taste of a hazel nut.—Sw. It is a native of Jamaica.

The wood makes very handsome furniture, resembling in appearance the English oak or wainscot; but takes a fine polish. The hewers usually make a fire round the root, and burn some depth into the trunk, before they venture to cut it. The fire is suffered to prey upon it till very little remains to be done by the axe. The sawyers and carpenters, who work it up, generally cover their mouths and nostrils with crape, in order to exclude the finer particles from getting down their throats. Upon enquiry among the negroes, I could not learn that they suffered any inconvenience from drops of the juice, which were accidentally spurted upon their skin, whilst they were employed

ployed in felling the trunk, or hacking off the limbs; but they informed me, that, if any chanced to fly into their eye, it would give them a severe pain for several hours afterwards, occasioning an inflammation, which was relievable by applying lime-juice to the part.\*

The stories related of the fruit or apple of this tree are certainly to be classed among vulgar errors. The romantic tales of the early voyagers and travellers into America have been copied by different writers; and the credibility of their relations, thus built upon a series of such frail authorities, has at length been received as authentic and indisputable. Most of these historians affirm that "the apple is lovely to the eye, pleasant to the taste, but mortal in its effects;" and that "certain sailors having taken refuge from sudden showers of rain under the branches of this tree, were terribly blistered in their skins by the drops which trickled from the leaves."

It is true, that the apple bears some similitude, viewed at a small distance, to the English crab-apple; but the crab-apple was never admired for loveliness of aspect. It seldom exceeds an inch in diameter, is of a yellowish colour when ripe, and has scarcely any pulp at all; the fruit consisting of the outer skin, or rind, a pulp about as thick as a wafer; and then the stone or seed, which is perfectly hard and inedible. Its taste is bitterish; and, when it is green, acrimonious, like the husk of the cashew-nut; which must necessarily render it so disgusting, that no person could eat it in this state for pleasure.

A gentleman of my acquaintance, who was fond of making experiments, to satisfy himself upon doubtful points, cut the green fruit; and a small quantity of glutinous juice issued out at the wound. He tasted this, and likewise the bark and leaf of the tree; but could perceive only a slight astringency on his tongue. He then cut deeper into the bark of the trunk, and tasted some of the milky juice that oozed out. He observed that it tingled his tongue gently, and rendered his saliva thin and fluid. He afterwards tasted the fruit nearly ripe, and, chewing the ripe part, found it perfectly insipid. From these facts it appears, that, when green, the juice of the fruit is disagreeable from its acrimony, and, when ripe, for its insipidity.

Browne says, that he has known many persons who have ignorantly ate of the fruit, which they had mistaken for crab-apples; that they generally vomited in a short time, and continued to complain of a burning heat in the mouth, throat, and stomach, for several hours after. He adds, that he never had known any one to die by eating this fruit, though he had seen some who had eaten nine or ten of the apples at a time; and that oily emulsions and mixtures give speedy relief to those who are disordered with them. Barham, indeed, mentions the case of a negro-man, who ate several of them with a wilful and premeditated design of destroying himself; that he complained of great heat and burning in his stomach, but could not vomit; that his tongue swelled, his eyes were red and staring; and he was incessantly calling for water till he expired. Considering this negro's intention to commit self-murder, as well as the symptoms which followed, I think we may conclude that he chose the green and not the ripe fruit for the purpose.

The white land-crabs are fond both of the leaves and fruit. But I have known persons taken extremely sick at their stomachs after eating these crabs, and who were not relieved until they were disgorged, by drinking plentifully of warm water and oil.

Q q q 2

r: member

\* Jacquin informs, that he and his companions rested for three hours under a manchioneal tree without injury, and that rain dropping from the leaves was perfectly innocent.

remember a negro who continued ill for three days, from a meal he had made on these crabs, but, without recourse to medicine, was relieved by natural evacuations downwards, and was perfectly well after them.

Sir Hans Sloane gives us an example of a turner, whose eye became extremely inflamed and swelled with some of the juice, which spurted into it as he was felling one of these trees. Sir Hans ordered him to be bled, gave him a purge of *extr. rud.* and ordered him to wet his eye very often in cold water, and apply wet brown paper continually, to cool the part. With these applications he was cured in three days. He likewise speaks of a man who ate four of the apples, yet was not much hurt.

It is plain from hence, that the trunk and unripe fruit contain an acrid juice, which operates like other materials of the like nature, exciting heat, irritation, and thirst, when swallowed and received into the stomach, producing such a pungency on the throat, and tender nervous coats exposed to its action, as greatly to disorder the whole frame, and bring on very bad symptoms, and sometimes death; but that the juice, when matured and concocted, as we find it in the ripe fruit, loses much of this acrimony, and, though still unpleasant in its operation upon the bowels, does not produce mortal effects, unless perhaps in very weak and delicate habits; but, as to these latter, I speak only from conjecture.

That the fruit should sometimes produce violent irritation, and at other times be chewed, and even swallowed, without any disagreeable consequence, can only be accounted for by supposing, that persons of stronger or weaker habits are differently affected by it; and that the juices of the fruit may possibly vary much in the different stages of its advance to maturation, and until the exact time of its being thoroughly ripe, when, by a perfect fermentation, and concoction, their acrimony is almost subdued. It is not unlikely also, that the juices of this tree may be more poignant and caustic in the hot months than during the cooler seasons of the year, because the sap in those months is more redundant and active.\*

It is well known, that goats, and even sheep, (Tertre adds macaws) feed very greedily upon the fallen fruit, when it is in a state of perfect maturity, and doubtless resolve it into wholesome nourishment.

Instinct, which determines the choice of these animals, points out this as an aliment not baneful (at least to them); for they suffer no injury from it. Barham observes on its virtues as a substitute for gum guaiacum.

The gum of this tree is mostly of a light reddish or yellowish cast; the guaiacum most commonly of a deep green, when held up to the light. The tincture of the latter gives a milky appearance, when a few drops are let fall into a glass of water—(see *lignum vitæ*). I believe the one has very often been ignorantly substituted for the other; yet, if Barham's veracity is to be relied on, which I think it is, there is not much room for apprehensions from the consequence. The gum is most plentiful upon these trees in the month of February; and it is to be wished its nature could be more accurately examined and put to the test.

The odour of the ripe fruit is faint, and far from being inviting.—*Long, p. 838.*

Barham says he has experienced, that if you lay these apples in a press where cockroaches are, they will soon forsake it. He used it in the room of gum guaiacum, by dissolving

\* The juice and tender buds of the *bignonia leucocylon*—see white cedar—are said to be an antidote to this poison.

dissolving it in rectified spirit of wine, making a tincture, which it was impossible to distinguish from the same preparation of gum guaiacum. He found it a specific for the dropsy, giving a decoction of contrayerva and steel, to strengthen the lymphatic vessels after the evacuations.

See GUM-TREE.

No English Name.

MANETTIA.

CL. 4, OR. 1.—*Tetrandria monogynia*. NAT. OR.—*Contortæ*.

This was so named from Xavier Manetti, prefect of the botanic garden at Florence.

GEN. CHAR.—Calyx an eight-leaved perianth; corolla one-petaled, salver-shaped, four-cleft; nectary a rim surrounding the receptacle; stamens four filiform filaments, with linear anthers; the pistil has an inferior compressed germ, a filiform declined style, and bifid stigma; the pericarp is a turbinate capsule, inferior, compressed, grooved on both sides, one-celled, two-valved, or separable as it were into two capsules; seeds few, flat, winged, orbiculate with a central seedlet, imbricate at a pulpy oblong pillar. One species is a native of Jamaica.

LYGISTUM.

*Flexile fruticosum, foliis ovatis oppositis, petiolis pedatis, racemis alaribus.* Browne, p. 142, t. 3, f. 2.

Leaves ovate-acute, veined; stem twining, suffrutescent.

Browne found this weakly shrub in the lower mountains of St. Mary's. It rises by a very branched flexile stem to the height of about seven feet, and is every where adorned with moderately large oval leaves, disposed in an opposite order: the twigs or boughs begin to shoot almost immediately above the root; and they, as well as the succeeding branches, rise generally to the height of the main stem, and are furnished with moderate branches of flowers towards the top, which generally rise by long branched footstalks from the axæ of the leaves.—*Browne*.

MANGEL WURZEL—See BEET.

MANGO.

MANGIFERA.

CL. 5, OR. 1.—*Pentandria monogynia*. NAT. OR.—*Terebintaceæ*.

This name is derived from the vernacular name of the fruit, and *fero*, to bear.

GEN. CHAR.—Calyx a five-parted perianth, divisions lanceolate; corolla five-petaled, petals lanceolate, longer than the calyx; the stamens are five filaments, awl-shaped, spreading, the length of the corolla, with sub-cordate anthers; the pistil has a roundish germ, a filiform style, the length of the calyx, with a simple stigma; the pericarp is a kidney-form drupe, oblong, gibbous, compressed; seed an oblong kernel, compressed, lanuginose. One species has been introduced.

INDICA.

INDICA. INDIAN.

Leaves simple; flowers five-stamened.

This beautiful tree was one of those brought to this island in June, 1782, and taken in a French ship, bound for Hispaniola, by Captain Marshall, of his Majesty's ship *Flora*, one of Lord Rodney's squadron. Captain Marshall, with the approbation of Lord Rodney, deposited the mango plants, and a great many others taken in the same vessel, in Mr. East's garden, where they were cultivated with great assiduity and success; and have now become one of the commonest fruit trees in Jamaica, in a great number of its varieties.

This tree grows to a considerable size, in favourable situations, with an upright stem, rough bark, and thick, spreading, elegant head. The wood is of a soft brittle nature. The branches shoot six or eight together at a joint, with an upright one in the centre; each of them producing branches in the same order at every foot or eighteen inches distance, according to the size of the tree; forming a beautiful round foliated head.—The leaves come out alternately at the ends of the twigs, seven or eight inches long, and two or three broad, ovate-lanceolate, petioled, having a strong mid-rib, and many irregular parallel veins; they are reddish brown at first, but become, when sometime exposed to the air, of a bright shining green above, paler below. The flowers are produced in loose bunches or panicles at the ends of the branches, male, female, and hermaphrodite, on the same bunch. In the perfect flowers the calyx consists of five acute spreading leaflets; the corolla, which is inferior, of five oblong flat petals, reflex at the tip, white, with yellow streaks at the base, longer than the calyx; nectary spheroidal, large, fleshy, five-lobed, compressing the germ; stamens shorter than the corolla, with five ovate nodding anthers; style short; stigma round, reddish; germ round; the plant is evidently *polygamous*. The fruit is pendent on long woody footstalks, of a roundish oblong figure, varying much in size and form, as well as texture, on different trees; it is generally flattish, and sinuated or hollowed at the sides, and somewhat kidney-shaped, covered with a thick skin, which is first green, then yellowish, and lastly mixed with a beautiful reddish colour, and is easily peeled off when the fruit is ripe; the pulp, which surrounds the seed, is yellowish, something like that of the peach, in some of the kinds stringy, in others free of fibres, of a very agreeable sweet-acid taste, and, as well as other parts of the tree, has a slight not unpleasant smell of turpentine. The seed is oblong, flat, hard, one-celled, containing an oblong kernel of a bitter taste. Its umbilical chord is very short, arising from the bottom of the shell, and inserted into the margin of the kernel, which has a papery skin. Embryo upright, white; cotyledons fleshy, plano-convex; radicle short, curved in upwards, inferior.

This fruit is very justly and generally esteemed wholesome and agreeable; in some of the varieties it is indeed delicious. When taken from the tree before they are fully ripe, they make a good preserve, sweetmeat, or pickle; and, when brought to table cooked in puddings or dumplings, have a near resemblance in taste to apples. Hogs, as well as other animals, are very fond of this fruit, and, in many places where they abound, are fed upon them. This plant is easily raised from the seed, but does not bear transplanting well, and will bear in three or four years; they bear abundantly, and make a beautiful appearance both when in flower and in fruit, and thrive well in almost every situation.

In the East Indies the tender leaves, with the bark of the *ricinus*, or oil-nut, and *cumin*



cumin seeds, are made into a decoction, which is thought highly beneficial in cough and asthma, and other affections of the thorax: the stones roasted are said to cure looseness, which Garcias found to be true: the stalks calcined and reduced to powder are said to cure warts: the bark of the tree pulverised, and taken in chicken broth, is an excellent dissolvent of extravasated and coagulated blood, occasioned by a fall, in any part of the body: the juice of the bark, with the white of an egg, and a very little opium, taken inwardly, is a present remedy against the diarrhoea, dysentery, and tenesmus. Of the gum of the tree, and flour of rice, with the addition of a small quantity of opium, are prepared pills, which also cure all sorts of fluxes of the belly: of the flour of the dried kernels the natives have the art of preparing various kinds of food.—James, from Chamber's Cyclopaedia.

## MANGROVE.

## RHIZOPHORA.

CL. 11, OR. 1.—*Dodecandria monogynia*. NAT. OR.—*Holoraceae*.

This name is derived from two Greek words signifying root-bearing.

GEN. CHAR.—Calyx a one-leafed perianth, four or many-parted, patulous; segments oblong, acuminate, permanent; the corolla has four or more petals, oblong, rather shorter than the calyx; the stamens have scarcely any filaments, alternately shorter; anthers four to twelve, small, acuminate; the pistil has a superior roundish germ; an awl-shaped semi-bifid style, grooved on each side; and acute stigmas; the pericarp fleshy, sub-ovate, inclosing only the base of the seed; seed single, club-oblong, acuminate, fleshy at the base. One species is a native of Jamaica.

## MANGLE.

*Mangle pyri foliis cum siliquis longis ficuti Indicae affinis.* Sloane, v. 2, p. 63. *Utrinque brachiata; foliis elliptico-ovatis, summis ramis dispositis.* Browne, p. 211.

Leaves acute; fruits subulate-clavate.

The mangrove tree rises thirty, forty, or even fifty, feet high; the trunk about the size of the human body, with a whitish, smooth, thick, bark, and white spots upon it. The wood is white, but becomes red when macerated in water. Leaves ovate, slightly attenuated at the end, blunt, quite entire, shining, coriaceous, deep green on the upper surface, on the lower yellowish green, with blackish dots, petioled, opposite, from three to six inches long; on the younger branches, which have no flowers, they are about two inches asunder, and in young trees the internodes are even six inches long; but on the old and flowering branches they are nearer, and very old ones are almost covered with leaves. Each pair of leaves, before unfolded, is rolled up in two oblong, convoluted, erect, stipules, which soon fall off, leaving two scars on the branch, alternate with the leaves. Common peduncles axillary, solitary, an inch long, compressed, marked with a longitudinal groove, two-flowered, bifid, sometimes three-flowered, and obscurely three-cornered; pedicels round, and half an inch long, but in the fruit they are lengthened out two inches or more. The flowers are commonly without scent, but sometimes a little sweet; calyx deeply four-cleft, yellowish; petals four, whitish; anthers constantly eight, sessile, as long as the style, separating elastically.

tically into two parts at the base, and hence very caducous.—*Jacquin*. (Browne says that the number of filaments varies from four to twelve, but that eight is the most common number.) According to *Gærtner*, there is no pericarp, and certainly this plant germinates in a very extraordinary manner, as will be observed in the following account from Browne's History :

" This tree is generally found on the borders of the sea, in whose waters alone it seems to thrive ; and then only in such places as have a soft and yielding bottom. Its larger branches frequently emit soft and weakly appendices, that have the appearance of so many slender aphyllous branches, and bend always downwards ; but as these are softer, and furnished each with a large column of a lax spongy pith in the centre, they grow more luxuriantly than the other parts of the tree, and reach the mud in a short time ; where they throw out a numberless series of slender fibres, which in time turn into roots, to supply the stem more copiously with nourishment, while they become so many props or limbs to the parent tree. Thus it continues to enlarge its bulk, as its weight increases, or its branches spread, (these constantly throwing out new appendices as they multiply their shoots) and by these means forms those interwoven groves we so frequently meet with on the sea-shore, which, besides many other advantages, serve to stop the mould that is constantly washed down by rapid floods, and thereby, in time, turn, what might have otherwise continued useless ponds, into rich and fertile lands.

" The fruit of this tree germinates within the cup, and grows from the top downwards, until it acquires a due degree of weight and perfection : then it falls off, and as the root part is always thickest, and hangs lowest, it drops in that direction, and is thus received in the natural position in the mud below. The leaves immediately unfold, and, in a few minutes, you see a perfect plant, sometimes of ten or twelve inches in length, which soon begins to shoot its roots, and push its growth like the parent stem ; for the germ is frequently a foot in length before it falls, and always furnished with two leaves at the top, which are folded up and inclosed within the cup while it continues upon the tree.

" The trunk of the mangrove seldom grows to any considerable thickness, but the wood is very tough and hard, bears the water well, and is much used for knees and ribs in long boats and other small craft, for which the archings and angles of its limbs most naturally adapt it. Its lower limbs become frequently the supporters of the American oysters, which has given rise to the fabulous account of the growth of this shell-fish.—*Piso* says that a piece of the root toasted, and applied warm to the painful wounds inflicted by the sting of the fish *nigui*, soon quiets the pain."—*Browne*.

The bark of the red mangrove is made use of here for tanning, and does it to that perfection in six weeks that oak-bark will not do in six months time, and it is reckoned to give the most lasting sole-leather in the world. It is a most excellent restrigent : I have made a strong decoction of the mangrove-bark that would stop bleeding, and dry up the great defluxion of running ulcers. I had a son that was extraordinarily full of the confluent small-pox, whose soles of his feet separated, and came off like the sole of a shoe, and left his feet raw, and so tender that he could not set them upon the ground ; upon which I sent for some of the tan-fat or liquor of this bark, such as they tan their leather with, and added a little alum, and boiled it up very strong, with which he bathed his feet every day ; and in about a week's time, his feet were as hard and as firm as ever, and he was able to walk about without shoes on.—*Barham*, p. 101.

I have often wondered, considering the powerful effects of these restringent barks upon animal substances, and that, by numberless experiments, their stronger infusions have been found to recover from a state of absolute putridity, that some trials are not made how far persons in the latter stage of putrid and malignant fevers, when livid *petechiae* make their appearance, when the blood is nearly dissolved, and the disease seems desperate, might not be recoverable, by being plunged into a warm bath made with bark decoctions; the finer virtues of the bark, absorbed into all the pores spread over the surface of the body, must (it is reasonable to imagine) have an immediate effect upon the fibres, in some measure restore their tone and springiness, and, by their antiseptic quality, re-unite the globules of the blood, and correct their disposition to putrescency.\* I am persuaded, from more than one observation, that the Jesuit's bark may be administered to infants in this manner, when they are incapable of taking it by the mouth, and with the happiest effects. Such experiments are deemed bold, because they are out of the common track; but surely what is called a desperate case would always justify the attempt, and especially when it is at least probable that it may succeed.

The quantity of fluid which may be carried into the human body by absorption in a bath is amazing; and, upon this principle, the ingenious Dr. Hales suggests a means by which persons at sea, when ready to perish with thirst, from want of fresh water, may obtain a recruit; which is, by immersing their naked bodies frequently in a tub of sea water; they will imbibe the water at every pore, freed of its salt, which is too large to enter with it, and remains condensed upon the surface of their skin.† But in the case of the bark decoction, much of its antiseptic principles are sucked in with the water.—Long, p. 811.

The wood of the mangrove tree makes very good staves for sugar hogsheads and pierces; it makes also good shingles.

See ALDER TREE and OLIVE MANGROVE.

MANISURIS—See BUR-GRASS.

No English Name.

MARATTIA.

CL. 24, OR. 2.—*Cryptogamia filices.* NAT. OR.—*Filices.*

\* This was so named by Swartz, in honour of G. F. Maratti, an Italian botanist, who wrote on cryptogamous plants.

GEN. CHAR.—Capsules oval, gaping longitudinally at top, with several cells on each side. One species is a native of Jamaica

ALATA. WINGED.

Rachises scaly, the partial ones winged; leaflets sharply serrate.

R r r

Frond

\* Are not all these effects answered by bark jackets lately introduced into practice? The hint of them perhaps is taken from this suggestion.

† When Columbus dispatched an express from this island to the Commander at Hispaniola, the Indians who were employed in navigating the canoe, plunged themselves into the sea every now and then, when almost spent with the fatigue of rowing, and parched with heat and thirst; for they had found by experience, that this practice revived their spirits, and enabled them to renew their labours.

Frond bi-pinnate, with the pinnae generally opposite; rachis almost four-cornered; scales scattered, linear, acute, membranaceous, dusky; partial rachises with more frequent scales; wings narrow, the same substance with the leaflets, but veinless and quite entire, contracted and evanescent at the insertion of the leaflets. Pinnules generally opposite, sessile, ovate-lanceolate, acutely serrate, especially towards the top, veined, the veinlets almost always bifid near the origin, ending in the tips of the serrations, sometimes like the central nerve, minutely scaly. The lower pinnules are lobed, the upper ones entire; the terminating one elongated, acuminate, serrate-lobed. Capsules solitary, placed on the partial veins beyond the middle, before they open roundish or oval, the size of poppy seeds, even, with a longitudinal cleft above, which afterwards gapes, and discovers a double row of little holes, about five on each side, communicating with the cells of the capsule. Finally the rim of the capsule becomes cloven and sub-lobed.

See FERNS.

No English Name.

MARCGRAVIA.

CL. 13; OR. 1.—*Polyandria monogynia*. NAT. OR.—*Putamineae*.

This was so named in honour of George Marcgraff, of Leibstadt, author of a voyage to Brasil in 1648.

GEN. CHAR.—Calyx a six-leaved perianth, imbricate, permanent; leaflets roundish, concave; the two outmost larger; corolla one-petaled, conic-ovate, entire, closed like a calyptra, parting at the base, caducous; the stamens very many filaments, awl-shaped, short, spreading, deciduous; anthers upright, large, ovate-oblong; the pistil an ovate germ, style none, stigma headed, permanent; the pericarp a coriaceous berry, globular, many-celled, many-valved; seeds numerous, small, oblong, nestling in soft pulp. There is only one species, a native of Jamaica.

UMBELLATA. UMBELLED.

*Phyllitidi scandenti affinis major, folio crasso subrotundo*. Sloane, v. 1, p. 74, t. 28, f. 1. *Scandens, foliis caulinis subrotundis, ad margines glandulatis; ramorum integris, ovatis alternis, distichis; floribus umbellatis terminalibus*. Browne, p. 244, t. 26.

This is a shrubby creeping plant, but not properly parasitical; at first it is radican, like some ferns, whence Sloane has given a figure of a young plant among his ferns.—As it advances the stem becomes shrubby, adhering still by its fibres to the trunk of some tree, to the top of which it frequently runs, at length dividing into several subdivided, loose, pendulous, branches, commonly terminated by flowering umbels.—The leaves of a young rooting plant are roundish, sub-sessile, slightly emarginate, with an entire margin and glandular dots. Leaves of the branches distich, alternate, on short petioles, ovate-lanceolate, of a thick consistence, deciduous, smooth. Umbels nodding, with many simple, one-flowered peduncles. In the centre of the umbel-tricular glands, spreading, oblong, ventricose, helmet-shaped, deciduous, coriaceous.—*See*.

The

The *climbing marcgravia*.—This curious plant is frequent in the woods of Jamaica; and appears in such various forms, that it has been often mistaken for different plants, in the different stages of its growth. It is but a slender weakly climber at first, and, as it rises, throws out a few leaves, somewhat of the form of a heart, on both sides: these are sustained by very short footstalks, and stand always opposite to a number of slender radical fibres, whereby it sticks and grows to its supporter. By these means the plant continues its growth, until it gains the top, and lays its trunk more commodiously over some of the larger branches of the tree; then it begins to strengthen, and casts many slender, dependent, and sub-divided, branches from the upper parts. But, as it increases at top, the stem grows thicker, separates from the supporter, throws off its now useless leaves and roots, and appears a strong withy shrub, whose trunk is frequently no less than four or five inches in diameter. The branches of this plant hang always downward, bearing the leaves in an alternate but distich order. The flowers are sustained by long footstalks, and disposed in the form of an umbella, about the extremities of the branches; but the summit, or crown of the supporter, is constantly adorned with four, five, or more, hollow, divergent, glandular, bodies, that occupy the centre of the umbella: these are of an arched oblong form, obtuse and roundish; they are hollow within, and affixed by very short footstalks, that rise immediately from one side of the aperture or opening of the gland; which is so disposed as to receive the water that dribbles down along the branch in rainy weather. What the real use of these may be is not easily determined: it is, however, remarkable, that the leaves of the branches are plain, of an oblong oval form, with a smooth membranous edge; while those of the younger plants are always observed to have many little glands, set gradually round the margin.—*Brown.*

The following observations on this plant are from the manuscript of Mr. Anthony Robinson:

“What Linneus calls the corolla of this plant I think would more properly be called the calyptra, and the genus might be classed among the *cryptogamia*; for it appears to me that this conic calyptra cannot fall from the blossom by reason of its strength and situation, till split open by the swelling of the inclosed fruit, which then must be fecundated; because, at the same time the calyptra is driven off the flowers, by the swelling of the fruit, the stamina must be carried away, which is evident, by reason of their situation round the base of the germen. This strange shrub rises to the height of fifty feet, with a ligneous stem, covered with a rough brown bark, red and streaked when cut, and of a bitter astringent taste. The stem is round, two inches in diameter, and sends forth lateral thick fibres, wherewith it embraces the tree it happens to grow upon; from its lower part it detaches some slender branches, which also send forth fibres; these may be called the adherent branches, which bear, in alternate order, many cordated leaves, lying flat to the tree on which they grow, giving it the appearance of one of the scandent ferns; above these it emits other branches, thicker, and shooting in an oblique direction upwards; these are divided into lesser; at their sides grow in alternate order, smooth, dark-green, shining, leaves, of an oval form, about four inches long, and one and a half broad, their margins marked with some almost imperceptible notches, and they have alternate side veins, hardly visible: they stand upon crooked, twisted, pedicels, in such manner that their faces incline downwards, and the middle rib, which is pretty eminent, appears above. The leaves of both kinds are bitter, but not ungrateful; the pedicels which form the umbel are subulated and patent. The strange bodies, shaped like the hood of the *napellus* flower, are five in number,

R r 2

and

and stand upright on long footstalks, forming another umbel. I traced this plant from the base of a very long palmeto royal, which was fresh cut down, to the top, and by that means came to learn its various appearances. By cutting a germen I found the fruit was pentalocular, and I also observed the fruit split lengthways into three valves."

## MARJORAM.

## ORIGANUM.

CL. 14, OR. 1.—*Didynamia gymnospermia*. NAT. OR.—*Verticillata*.

GEN. CHAR.—Calyx a spiked involucre, composed of imbricate, ovate, coloured, bractes; perianth unequal, various; corolla one-petaled, ringent; stamens four, filiform, two shorter, with simple anthers; the pistil has a four-cleft germ, a filiform style, and slightly bifid stigma; there is no pericarp; calyx converging, fostering at bottom the seeds, which are four, ovate. Two species have been introduced.

## 1. MAJORANA. MARJORAM.

Leaves oval, blunt; spikes roundish, compact, pubescent.

This plant, the sweet or knotted marjoram, thrives well, and is easily propagated in Jamaica. The leaves and tops have a pleasant smell, and a moderately warm aromatic bitterish taste: they yield a considerable quantity of essential oil, which, when long kept, assumes a solid form. This plant is accounted cephalic, and useful in nervous complaints. In its recent state, we are told it has been successfully applied to schirrous tumours of the breasts.—*Woodville*.

## 2. ONITES.

Spikes oblong, aggregate, hirsute; leaves cordate, tomentose.

The pot marjoram also thrives well in Jamaica: it has the habit of the foregoing, but more woody.

## MARSHMALLOWS OF JAMAICA

## SIDA.

CL. 16, OR. 6.—*Monadelphia polyandria*. NAT. OR.—*Columnifera*.

GEN. CHAR.—Calyx a one-leafed, angular, perianth, half five-cleft, permanent; the corolla has five petals; wider above, emarginate, fastened below to the tube of the stamens; the stamens very many filaments, united below into a tube, in the apex of the tube divided, with roundish anthers; the pistil has an orbicular germ; styles five or more, or else one, many-cleft; stigmas beaded; the pericarp is a roundish angular capsule, composed of five or more cells, (corresponding with the number of styles or stigmas) two-valved, awnless, acuminate or horned, opening above, or close, and finally separating; seeds solitary, two, three, or five, roundish, mostly acuminate, convex on one side, angular on the other, fastened to the anterior suture. Twelve species of this genus have been discovered in Jamaica.

## 1. ALTHEA.

## 1. ALTHÆEFOLIA. MARSHMAL LOW-LEAVED.

*Althea flore luteo.* Sloane, v. 1, p. 218, t. 136, f. 2. *Erecta sub-incana villosa, ramulis brevioribus, foliis oblongo-cordatis serratis, floribus confertis ad alas superiores.* Browne, p. 279.

Leaves cordate, somewhat angular, obtuse, serrate-crenate, tomentose on both sides; beaks of the seeds shorter than the calyx.

The whole plant is tomentose, hoary, and soft; the peduncles are axillary, towards the top of the branchlets, shorter than the petioles, sub-solitary, sometimes, but rarely, two or three together, round, tomentose, one-flowered. Flowers biggish, orange-coloured, fulvous; capsules roundish, compressed, one-seeded.—Sw. Browne calls this the *marshmallow of Jamaica*, common in all the lowlands and savannas of the island, growing upright about two or three feet, and branchy at top. The flowers and tender buds are full of a fine mucilage, and generally used instead of marshmallow. Sloane says it grew on the sandy banks near Old Harbour very plentifully.

## 2. SPINOSA. THORNY.

*Malva erecta minor, carpini folio, flore luteo; seminibus singulis simpliciter aculeo longiori donatis.* Sloane, v. 1, p. 218.

Leaves ovate-lanceolate, obsolete cordate-toothed; peduncles sub-solitary, axillary; axils somewhat spiny; stipules bristle-shaped, longer than the peduncle; capsules two-beaked.

Stem hairy, branching, near three feet high; the branches come out from the bottom almost to the top, and form a pyramidal bush; leaves lanceolate, deeply-serrate, on short petioles; flowers axillary, solitary towards the bottom of the stem, but above in clusters, of a pale sulphur colour; the seeds have each a long prickle.

## 3. CILIARIS. CILIATED.

*Malva minor supina betonice folio, flore coccineo, seminibus asperis.* Sloane, v. 1, p. 217, t. 137, f. 2. *Malva 2.—Minima supina, foliis oblongis serratis, pedunculis uniformis monophyllis, calice exteriori remoto, foliis angustissimis ciliatis.* Browne, p. 282.

Leaves lanceolate-truncate, toothed, somewhat wedge-shaped at the base; stipules linear-ciliate, longer than the flower; flowers solitary, sub-sessile; capsules awnless, muricate.

Stem five or six inches long, pubescent, filiform, strict, rugged, with diverging branches. Leaves terminating, in clusters, oblong, retuse, serrate towards the top; stipules the length of the petioles; flowers blood-red; capsules five, depressed, muricate.—Sw. Browne calls it the *small creeping mallows*, very common in the lowlands, seldom running above seven or eight inches in length. The flowers grow single, and each of the footstalks generally adorned with one leaf and three ciliated stipules, which compose the outward cup; but those toward the top of the plant are very short; so that the flowers appear as if they were disposed in small heaps at the axils of the leaves.—It grows in dry savannas, and flowers after rain.

## 4. RHOMBIFOLIA. RHOMB-LEAFED.

*Malva minor erecta, betonice folio, flore luteo, semine duplici rostro seu aculeo prædita.* Sloane, v. 1, p. 217.

Leaves

Leaves oblong-lanceolate, toothed, wedge-form at the base, quite entire; peduncles much longer than the petioles; capsules two-horned.

This has a large strong root, deeply fixed in the ground; the branches are woody, erect, of a dark brown colour, rising a foot high. The leaves are purple about the edges, agreeing in most respects with the *ciliaris*, having two prickles at the ends of the outermost coat of the seeds. The whole plant boiled is diuretic. From the root is made an oil.—Sloane.

5. VISCOSA CLAMMY.

*Alcea populi folio villosa, leviter serrato.* Sloane, v. 1, p. 222, t. 139, f. 4. *Fruticulosa, viscosa et villosa; foliis cordato acuminatis, superioribus leniter et acute crenatis; petiolis longis, pedunculis tenuibus solitariis ad alas.* Browne, p. 280.

Leaves ovate-cordate, acuminate, very finely serrate, tomentose-viscid, hairy, peduncles sub-solitary, longer than the petiole; capsules awnless.

This has many green round stems, rising from two to four feet, spreading. At the ends of the twigs are two or three leaves, on inch-long petioles, hirsute, and small.—The flowers are axillary, peduncled, and yellow. The whole plant is clammy, and smells strong. Browne says it has very small footstalks to the flowers, and seldom grows above four or five feet high; the trunk ligneous, and covered with a whitish bark; the leaves and smaller branches a little villose; the seed vessels but few, flattened at the top, and composed of many cells.

6. URENS. STINGING.

*Allhea spicata betonicae folio villosa, spica breviori et laxiori.* Sloane, v. 1, p. 44, t. 14, f. 3. *Hirta urticata, foliis cordatis serratis, floribus capitatis, pedunculis communibus alaribus.* Browne, p. 280.

Leaves ovate-cordate, acuminate, toothed; peduncles axillary, many-flowered, glomerate; capsules awnless.

Stem a foot high and more, suffrutescent, simple, or branched, erect, round, hirsute; leaves alternate, nerved, hirsute, hispid, on long petioles; stipules bristle-shaped, at the base of the petioles. Flowers terminating, heaped on axillary branchlets, sub-glomerate, on very short pedicels, yellow, with a purple eye; capsules five, oblong, compressed; seeds roundish, compressed, wrinkled, black. Native of Jamaica in dry coppices.—Sw. Browne calls it the *nettle sida*.

7. JAMAICENSIS. JAMAICA.

*Humilior, foliis ovatis serratis alternis, distiche sitis; petiolis et pedunculis brevibus, ramulis floriferis foliolatis alaribus.* Browne, p. 280.

Leaves ovate-serrate, tomentose; flowers axillary, sub-peduncled; capsules in fives, two-horned.

Stem suffrutescent, a foot high, branched, round, hispid; leaves petioled, alternate, small, scarcely acuminate, nerved, softish; petioles many times shorter than the leaves; leaves next the petiole slightly emarginate; stipules opposite, at the base of the petioles, bristle-shaped; flowers on very short peduncles, from one to three, small, yellow; beaks of the capsules very short.—Sw. Browne calls this plant the *broad-leaved broomweed*.



*broomweed*, very common in all parts of the island. The leaves and tender buds contain a great quantity of mucilage, and lather like soap with water, and are frequently used in shaving washes by such as cannot conveniently bear the smell or acrimony of soap. The leaves are purgative.

8. PERIPLOCIFOLIA. PERIPLOCA-LEAVED.

*Alcea populi folio incano integro.* Sloane, v. 1, p. 222, t. 139, f. 2:

*Sida three and four of*—Browne, p. 280.

Leaves cordate-lanceolate, acuminate, quite entire, tomentose beneath; peduncles sub-divided, longer than the petiole; capsules awned.

Root annual; stem two to four feet high, erect, simple, round, pubescent, sometimes divided towards the top into spreading branches: leaves petioled, alternate, smooth, somewhat wrinkled, hoary beneath. Panicle terminating, half the length of the stem, erect, almost simple, spreading; peduncles simply sub-divided, alternate, filiform, the last one-flowered. Flowers pale, somewhat light purple; capsules five, ovate, acuminate.—*Su.*

9. UMBELLATA. UMBELLED.

*Erecta, sub-villosa, ramosa, tenuis; foliis cordato acuminatis, reflectentibus, leniter et acute crenatis; flore singulari et ramulo florifero foliolato ad alas.* Browne, p. 281.

Leaves roundish-cordate, toothed, somewhat angular, acute; peduncles four-flowered or thereabouts, umbelled, axillary; capsules two-awned.

Browne calls this plant the shrubby *sida* with reflected leaves, which is very common in the hills about the Ferry, and rises generally to the height of four or five feet. The flowers are disposed chiefly towards the top, and the leaves commonly reflected a good way backwards.

10. PANICULATA. PANICLED.

*Foliis cordato acuminatis, serratis; pedunculis longis, tenuissimis, alaribus, inferioribus simplicibus, superioribus ramosis.* Browne, p. 280.

Leaves ovate-cordate, toothed; racemes panicled; capsules two-beaked.

Stem herbaceous, erect, two feet high, sub-divided, round, rugged, somewhat hirsute; branches spreading, almost simple, filiform. Leaves petioled, alternate, sub-cordate, the smaller ones ovate, acute, tooth-serrate, nerved, somewhat hirsute.—Peduncles axillary, sub-divided, very long; capillary, spreading very much; the last one-flowered; segments of the calyx bent back; corolla dark purple, with the petals spreading; capsules five, compressed, roundish, acuminate. Native of calcareous rocks.—*Su.*

11. DUMOSA. BUSH.

Leaves cordate, ovate-acuminate, serrate, smooth on both sides; flowers panicled.

Panicles terminating, branched, almost erect; petals a pale yellow; capsules five or more, frequently six, roundish, gibbous on one side, angular on the other, with awn-shaped.

awl-shaped beak, hoary with very small stellate hairs, closely converging at top, one-seeded. Native of the southern parts of Jamaica in coppices.—*Sw.*

12, ARGUTA. SHARP.

Leaves cordate-serrate, attenuated at the top; stem wand-like; peduncles axillary, filiform, one-flowered.

Stem smooth, round, three feet high, sending out long slender branches; leaves smooth, light green, on long footstalks, the lower ones near three inches long, and almost two broad at their base. Flowers on very long peduncles, small, and of a whitish yellow colour. Capsules five, two-awned at the top, smooth, one-seeded. Native of Jamaica in dry hedges in the southern parts.—*Sw.*

### MARSH TREFOIL OR BOG-BEAN.

### MENYANTHES.

CL. 5, OR. 1.—*Pentandria monogynia.* NAT. OR.—*Preciæ.*

GEN. CHAR.—Calyx a one-leafed, five-parted perianth, erect, permanent; corolla one-petaled, funnel-form. border five-cleft, clefts reflex, spreading, blunt, conspicuously shaggy; the stamens are five awl-shaped short filaments, with acute anthers, bifid at the base, erect; the pistil has a conical germ, a cylindric style, almost the length of the corolla, and a bifid compressed stigma; the pericarp is an ovate capsule, surrounded by the calyx, one-celled; seeds many, ovate, small. One species is a native of Jamaica.

INDICA. INDIAN.

*Nymphaea minoris affinis Indica flore albo piloso.* Sloane, v. 1, p. 252. *Aquatica nymphaea foliis cordato-orbiculatis, petiolis floriferis.* Browne, p. 151.

Leaves cordate-subcrenate; petioles floriferous; corollas hairy within.

The leaves are cordate, peltate, bright green on one side, dark russet on the other; flowers umbel-fascicled, placed on the stem just below the leaf. Glands and tube of the corolla yellow, border white, both of the most exquisite texture: the divisions of the corolla may be called three-winged; they look as if covered with silver frost.—*Gartner.* Sloane describes it as having a leaf like the colt's foot, floating on the top of water, about two inches in diameter, thick, yellowish green, smooth, without apparent nerves. Petioles about a foot long, more or less according to the depth of the water, on the surface of which they float; they are round and brownish, and out of them come several white flowers, just under the leaf, on peduncles an inch long, or shorter.

No English Name.

MARSILEA.

CL. 24, OR. 1.—*Cryptogamia miscellaneæ.* NAT. OR.—*Filices.*

So named in honour of Count Aloysio Ferdinando Marsigli, of Bologna.

GEN.

**GEN. CHAR.**—Common calyx oval, sub-compressed, coriaceous, hairy, gaping at the base, internally divided into several (fourteen or fifteen) cells, in two longitudinal rows, separated by a membranaceous partition; there is no corolla; the stamens have no filaments, anthers several, inserted round each pistil, very small, ob-ovate, sharp below, one-celled, gaping transversely, exploding a spherical pollen; the pistils several in each cell, co-ordinate in a transverse row, oval; no style, stigma short, blunt; no pericarp; seeds as many as there are pistils; the receptacle a somewhat fleshy membrane, clothing the cells internally. One species is a native of Jamaica.

**QUADRIFOLIA. FOUR-LEAVED.**

Leaves in fours, quite entire.

This plant is pretty common in the ponds about Old Harbour, and in the parish of St. Elizabeth; it has a slender weakly stalk, that creeps along the banks and bottoms under the water, and emits a few long and slender footstalks that reach the surface, and bear four thin obtuse leaves at their extremities, which are not unlike those of wood sorrel either in shape or size.—*Browne*. Capsules toothless. Leaves on long petioles; flowers at the base of the petiole; involucre pedicelled, ovate, transversely many-celled; cells having pistils and anthers placed on the same receptacle promiscuously.

**MARVEL OF PERU.**

**MIRABILIS.**

**CL. 5, OR. 1.**—*Pentandria monogynia.* **NAT. OR.**—*Nyctagineae.*

This was so named from the wonderful beauty and diversity of colours in the flower.

**GEN. CHAR.**—Calyx, the outer perianth one-leafed, erect-ventricose, inferior, five-parted; segments ovate-lanceolate, sharp, unequal, permanent; inner perianth globular, placed under the petal, with a contracted entire mouth, and permanent; corolla one-petaled, funnel-form; tube slender, long, thicker at top, placed on the inner calyx; border, from upright, spreading, entire, bluntly five-cleft, plaited; nectary spherical, fleshy, surrounding the germ, with a five-toothed mouth; teeth very small, triangular, converging; stamens five filaments, inserted into the orifice of the nectary, and alternate with its teeth, within the inner calyx free, more slender, fastened at bottom to the tube of the corolla, filiform, the length of the corolla, inclining, unequal; anthers twin, roundish, rising; the pistil has a turbinate germ within the nectary; a filiform style, the length and situation of the stamens; and a globular, dotted, rising, stigma; there is no pericarp; the inner calyx incrusts the seeds, and falls with it; seed single, ovate, five-cornered. One species is a native of Jamaica.

**JALAPA. TALAP.**

*Foliis ovatis seminibus pulchre reticulatis, radice carnosa.* *Browne*, p. 166.

Flowers heaped, terminating, erect.

This plant is common in Jamaica. It has a large thick fleshy root, which, when transversely cut, shews a number of concentric circles, and has an acrid taste. The stalk

stalk is upright, thick, jointed, branching numerously, widely, erectly, frequently more than a yard high. Leaves opposite, somewhat heart-shaped, sharp-pointed, on inch-long pedicels: branches and branchlets terminated by numerous flowers in clusters on very short pedicels, which are of different colours in the varieties, some white, some yellow, some red, some variegated, some with flowers of different colours on the same plant, all making a most brilliant appearance. It is remarked that plants raised from the seeds of the purple and white, never produce red and yellow flowers, nor the contrary. The root of this plant was once thought to be the real jalap, whence the trivial name, which medicine is procured from a species of convolvulus: the root is nevertheless of a purgative nature, when powdered, in doses of two scruples, or more. A bed of the *four-o'clock*, the name by which this ornamental shrub is generally known, spreads a delightful fragrance to a considerable distance; and is very generally cultivated, not only on this account, but because it is one of the most beautiful productions of nature. Thunberg informs that the Japanese ladies make a white paint from the meal of the seeds for their complexions.

*Four o'clock flower.*—This plant is so called in Jamaica from its opening and shutting every four hours, night and day, as they have observed there. I have seen of all colours. They have of this plant now in English gardens, calling it *marvel of Peru*; others make it a sort of jalap. It hath a root exactly like jalap; but its stalk, leaves, flowers, and fruit, are different. I have cut these as they do jalap, and, when cured, he must have a good judgment to know the difference; and I have tried to get the resin out, as of jalap; but I never could get above half an ounce out of a pound of root, whereas we commonly get an ounce and a half of resin, or two ounces, out of the true jalap. Now, if the purging quality lies altogether in the resinous part of the root, then this discovers the difference of the two roots: But I am of opinion, that all the purging quality doth not lie in the resin; for this four o'clock flower root, given in powder, works as well as the other in powder, but giving four times the quantity, and is of the same virtue. Its fruit is black, round, and rough, without-side; which skin being taken off, there appears a seed as big as an English pea, of the colour of English wheat; and under that thin skin is a fine white flour or meal, very soft to the touch, and tastes like wheat-flour; which I believe will purge as well as the root.—*Barham, p. 62.*

## MARYGOLD.

## CALENDULA.

CL. 19. OR. 4.—*Syngenesia polygamia necessaria.* NAT. OR.—*Compositæ.*

GEN. CHAR.—Calyx common, simple, many-leaved; corolla compound, radiate; proper of the hermaphrodite tubular, of the female ligulate; the receptacle is naked; there is no pappus; seeds membranaceous.

OFFICINALIS. OFFICINAL.

Seeds all boat-form, muricated, bent in.

This plant has been long introduced and generally cultivated in Jamaica, where it thrives well. The flowers of the common marygold are supposed to be aperient and attenuating, as also cardiac, alexipharmic, and sudorific; they are principally celebrated.

brated in uterine obstructions, the jaundice, and for throwing out the small pox.— Their sensible qualities, however, give little foundation for these virtues: they have scarce any taste, and have no considerable smell. The leaves of the plant discover a viscid sweetness, accompanied with a more durable saponaceous pungency and warmth; these seem capable of answering some useful purposes as a stimulating, aperient, and antiscorbutic, medicine.

MASTIC—See BASTARD BULLY TREE.

MATTEE—See FIG-TREES.

## MEADOW GRASS.

## POA.

CL. 3, OR. 2.—*Triandria digynia*. . NAT. OR.—*Gramina*.

GEN. CHAR.—Calyx a many-flowered, two-valved glume; corolla two-valved; accessory two-leaved; stamens three capillary filaments, with forked anthers; the pistil has a roundish germ, two reflex villose styles, and similar stigmas; there is no pericarp, the corolla cleaves to the seed, and does not open; seed single, oblong, acuminate, compressed on both sides, covered. Three species are indigenous to Jamaica.

## 1. GLUTINOSA. CLAMMY.

*Gramini tremulo affine, paniculatum elegans minimum.* Sloane, r. 1, p. 114, t. 71, f. 2.

Panicle spreading, strict; spikelets seven to nine-flowered, somewhat hirsute, glutinous; culm simple; leaves somewhat hairy.

Culm one or two feet high, sub-erect, very slender, strict, round, smooth, jointed below; leaves short, linear, acute, concave, spreading, hairy, or somewhat hirsute, the hairiness thin and clammy. Sheaths hirsute. Panicle two inches long, somewhat hirsute; branches alternate, distant, simple, few-flowered; spikelets distinct, three to six on a branchlet, purple, pedicelled. Calycine valves acute, keeled, minute.—Corolline glumes a little larger, ovate, acute, keeled, flattened a little; the inner ciliate, when examined by a magnifier; with that advantage the keel also appears serrulate.—Filaments very short; anthers dark purple; stigmas hairy, whitish; seed roundish, very minute. It is an annual grass, in dry sand.—Sw. Sloane says it grows plentifully in the savannas about Spanish Town.

## 2. PROLIFERA. PROLIFEROUS.

Panicle spreading, strict; spikelets many-flowered (sixteen to twenty); culm very much branched, knobbed, proliferous at the joints.

Culm a fathom high, or more, upright; branches sub-divided, round, striated, smooth; joints knobbed, leafy, proliferous as it were with the origins of a younger plant: leaves in bundles, linear, setaceous, commonly convoluted, sheathing, erect, even. Panicles a span and more in length, branched, erect; branchlets sub-divided, capillary, strict, flexuose; spikelets pedicelled, lanceolate, compressed; calycine valves equal; corolline valves ovate, acuminate, keeled; filaments two or three; anthers pale; stigmas villose.—Sw.

§ 3. 2

## 3. CILIARIS.

3. CILIARIS. CILIATED.

*Gramen pratense panicula et foliis angustissimis, spicis brevibus muticis locustis minimis.* Sloane, v. 1, p. 115, t. 73, f. 1. Briza.—  
*Tenuissima, paniculis quasi lanuginosis pedunculis brevibus et tenuissimis incidentibus.* Browne, p. 135.

Panicle contracted; inner valves of the glumes hairy, ciliate.

Culm from two inches to half a foot in height, simple, slender, erect, smooth; leaves linear, short, even. Panicle or compound spike contracted, with short branchlets pressed close; florets ovate, of a cinereous rust colour, minute, shining, villose; calycine glume from two to four-valved, from six to eight-flowered; valves equal, ovate, acute, keeled, awnless, beardless. Upper valve of the corolla ovate, obtuse, not keeled, ciliate at the edge; lower valve keeled, entire at the edge, the keel appearing serrate when magnified, inclosing the upper one at the base; anthers purple; stigmas villose, pale; seed oblong. This is a middle species between *briza* and *poa*. Browne calls it *small trembling grass*, and observes that this little plant seldom rises above six or seven inches, and is sustained by a very slender weakly stalk; it is easily distinguished by its delicate branches, fine leaves, and downy head.

No English Name.

MELAMPODIUM.

CL. 19, OR. 4.—*Syngenesia polygamia necessaria.* NAT. OR.—*Compositae*.

This name is derived from two Greek words signifying black and a foot.

GEN. CHAR.—Calyx five-leaved; corolla compound, radiate; the pericarp an unchanged calyx; seeds in the females solitary, ob-ovate, compressed, four-cornered, prickly at the sides, crowned with a heart-shaped, involuted, converging calycle; the receptacle chaffy, conical; chaffs lanceolate, coloured, the length of the florets; down one-leaved, involuted, converging. Swartz found one species of this genus in Jamaica.

HUMILE. HUMBLE.

Stem upright; leaves lyrate-toothed, sessile.

MELIC GRASS.

MELICA.

CL. 3, OR. 2.—*Triandria digynia.* NAT. OR.—*Gramina.*

GEN. CHAR.—Calyx two-valved, two-flowered; corolla two-valved; nectary one-leaved; there is no pericarp, the corolla incloses and drops the seed; which is single, ovate, and grooved on one side. One species is a native of Jamaica.

PAPILIONACEA. PEA-FLOWERED.

*Gramen spica brizæ singulari, locustis majoribus, villosis, purpurascens.* Sloane, v. 1, p. 106, t. 64, f. 1.

Lower valve of the calyx very large, coloured; outer petal sub-ciliate.

Culm

Culm geniculated, compressed, two feet high; leaves hard, yellowish green coloured, narrow, nine inches long. Panicle three-quarters of an inch long. Lower valve of the calyx ob-ovate, blunt, very large, coloured; upper valve only one-sixth of the size, remote from the lower, scarious, and coloured at the top; flowers two, alternate, besides the rudiment; outer petal to each oblong, striated; the middle ones mucronated, the side ones ciliate with many bristles, but the apex of the petal is scarious, with a thin even membrane, blunt, and coloured; inner petal simple; rudiment oblong.

No English Name.

MELOCHIA.

CL. 16, OR. 2.—*Monadelphica pentandria*. NAT. OR.—*Columnifera*.

GEN. CHAR.—Calyx a perianth, often double; outer one-sided, three-leaved; inner one-leaved, half five-cleft; segments half-ovate, acute, permanent; corolla five petals, ob-cordate, spreading, large; the stamens five filaments, awl-shaped, united at the base into a pitcher involving the germ, with simple anthers; the pistil has a roundish germ, five awl-shaped styles, erect, the length of the stamens, permanent; stigmas simple; pericarp a roundish or five-cornered capsule, five-celled, five-valved; valves acute, partitions contrary, doubled; the seeds solitary, or in pairs, on one side roundish, on the other angular, compressed.—Six species are natives of Jamaica.

1. PYRAMIDATA. PYRAMIDAL.

*Abutilon herbaceum procumbens, betonica folio, flore purpureo.*—Sioane, v. I, p. 220, t. 139, f. 1. *Herbacea tenuissimè ramosa, foliis oblongo ovatis, florum umbellulis lateralibus foliis approximatis.* Browne, p. 276.

Flowers umbelled; capsules pyramidal five-cornered; angles mucronate; leaves naked.

Stem shrubby at the base; branched, a foot high; branches depressed, diffused, ascending, simple, smooth; leaves alternate, ovate-acuminate, serrate, nerved, smooth; petiole shorter than the leaves, somewhat erect, slender; flowers peduncled, sub-umbelled; peduncles lateral, opposite to the petioles, solitary, the length of the petioles, three-flowered; corollas small, blood-red, frequently closed; calyx five-toothed, teeth erect, lanceolate, acute; claws of the petals yellow at the base; border sub-erect, entire, blunt. Capsule membranaceous, vascular, netted, from a ventricose bag rising into a short pyramid, having five narrow wings at the corners, produced near the base into a horizontal dagger point; the valves open along these wings, and are accompanied within by a middle septum. Seeds solitary, oblong, cornered, or angled. Browne describes it as a very elegant little plant, which he found among penguins near Old Harbour, shooting to the height of three feet or better, with a very slender and weakly stem, requiring support. The flowers are disposed in small umbels, generally placed pretty near, and on one side of the footstalks of the leaves, each is composed of five or six rays fixed upon a common peduncle.

2. DEPRESSA.

## MORTUS JAMAICENSIS

MELOCHIA

### 2. DEPRESSA. FLAT-FRUITED.

*Erecta minor, foliis ovatis serratis, petiolis geniculatis.* Browne, p. 276.

Flowers solitary; capsules depressed, five-cornered; angles blunt-ciliate.

The smaller *melochia*, or *braomaced*, is found in many parts of Jamaica, and rises commonly to the height of two or three feet, throwing out a few slender flexile branches on all sides. The leaves of this plant (which are angular) spread themselves every day about noon, to receive the heat of the sun more freely; but as the air grows cooler they generally rise upright, and stand almost parallel to the stem or branches. This mechanism of the leaves is greatly forwarded by the knee in the footstalk of each — Browne. The flowers are produced singly from the side of the stalk, they are of a fresh colour, and in shape like those of the small flowering mallow; capsules five-cornered, rough, inclosing five mallow-shaped seeds.

### 3. VENOSA. VEINY.

*Althea spicata betonica folio villosissimo.* Sloane, v. 1, p. 218, t. 138, f. 1.

Peduncles distinct, terminating, many-flowered; leaves ovate, serrate, veined, tomentose underneath; stem hairy.

Stem woody, four feet high, covered with brown hairs, sending out slender branches, on the lower parts of which are alternate leaves, an inch and a half long, and nearly an inch broad, serrate, with many longitudinal veins, on hairy pedicels; the leaves are also covered with a yellowish hair. The upper parts have no leaves for more than a foot in length, and from their sides come out peduncles two inches long, sustaining several small yellow flowers in clusters, having hairy calyxes, cut at the top into several acute segments.

### 4. TOMENTOSA. DOWNY.

*Abutilon arboreum spicatum, betonica folio incano, flore minore purpureo.* Sloane, v. 1, p. 219, t. 138, f. 2, 3. *Frutescens, foliis subincanis, villosis, oblongo ovatis, crenato-serratis; floribus racemosis, cortice fusco.* Browne, p. 276.

Flowers umbelled, axillary; capsules pyramidal, five-cornered; angles mucronate; leaves tomentose.

This rises from six to ten feet high, growing generally in dry gravelly soils. The stem is as thick as a man's leg, having a darkish-brown coloured bark. The branches spread on every hand towards the top; the leaves grow at the ends of the twigs, they are whitish, soft, crenate, tomentose, standing on short footstalks. Peduncles umbelled, many-flowered; flowers large, purple, or light flesh colour according to Browne.

### 5. NODIFLORA. KNOT-FLOWERED.

*Abutilon fruticosum, foliis subrotundis serratis, floribus albis pentapetalis ad alas foliorum conglomeratis.* Sloane, v. 1, p. 219, t. 135, f. 2.

Flowers congested, axillary; capsules globular; leaves ovate-acuminate, smooth.

This



This rises about five feet high, with a round stem, having round, alternate, smooth, purple, branches, a little flexuose. Leaves two inches long, smooth on both sides, thin, of a green colour, with the veins purplish underneath, serrate, acute, standing on short pubescent petioles; stipules lanceolate, smooth, the length of the flowers, deciduous. Flowers conglomerate at the axils, sessile, small, whitish. Bractes ovate, the length of the flowers; segments of the calyx ovate-acuminate; corolla longer than the calyx.

## 6. LUPULINA. HOP.

Racemes clustered, axillary; calyxes inflated, membranaceous; leaves ovate-cordate, gash-serrate, tomentose underneath.—Sw.

MELON—See MUSE and WATER MELON.

## MELON THISTLE.

## CACTUS.

CL. 12, OR. 1.—*Icosandria monogynia*. NAT. OR.—*Succulentæ*.

GEN. CHAR.—See Indian Fig, p. 408.

## MELOCACTUS.

*Echino melocactus*. Sloane, v. 2, p. 159. *Humilis subrotundis sulcatus et coronatus, spinis confertis*. Browne, p. 238.

Roundish, fourteen or fifteen angled.

This is called *Turks* or *Pope's head*; and is common in Jamaica, growing on the tops of old walls, rocks, and in barren places. They thrive with little or no earth to support them. Its roots are strong and many, which throw out a large round head of a greenish colour, deeply ribbed; and covered all over with prickles placed star-fashion. The skin is thick and juicy, and when the plant is cut through the middle, the inside is found to be a soft green fleshy substance, very full of moisture. They are frequently a yard or more in circumference; the spines on the surface of it were compared to the back of a hedge-hog by Linneus. On the summit rises a kind of crown, three or four inches in diameter, made up of reddish-brown sharp prickles, rising from a downy or cotton-like substance; from which also proceeds the flower, which is sessile, having many purple petals, which are long and narrow, coming from a common centre. The pericarp has its peduncle immersed in the downy substance; it is tapering, about an inch and a half in length, drawing to a point at bottom, but blunt at top. On the outside it is covered with a thin, shining, light purple-coloured, membrane, containing a pulp of the same colour, which has a very agreeable acid taste, and containing many black seeds. In times of drought cattle have been observed to rip open these plants with their horns, and devour the fleshy moist part.

See INDIAN FIG and TORCH THISTLE.

MENOW-WEED—See SPIRIT-LEAF.

## HORTUS JAMAICENSIS

MILKWOOD

No English Name.

MENTZELIA.

CL. 13, OR. 1.—*Polyandria monogynia*. NAT. OR.—*Calycanthem.*

So named in memory of Christian Mentzelius, physician to the Elector of Brandenburg, who was the author of some botanical works.

GEN. CHAR.—Calyx a five-leaved perianth, spreading, superior, deciduous; leaflets lanceolate, concave, acuminate; corolla five petals, ob-ovate, acuminate, a little longer than the calyx, spreading; stamens many filaments (thirty), the length of the calyx, erect, bristle-shaped, the ten outer membranaceous; anthers roundish; the pistil has a cylindric germ, very long, inferior; a filiform style, the length of the stamens, and a simple blunt stigma; the pericarp is a cylindric capsule, long, one-celled, three-valved at top; seeds about six, oblong, angular. There is only one species.

ASPERA. ROUGH.

*Setis uncinatis munita, foliis lobatis, fructibus singularibus sessilibus ad divaricationes ramorum.* Browne, p. 249.

The tufted herbaceous *mentzelia* is very common among the bushes in all the dry savannas about Kingston. It is an annual plant, rising with a woody smooth stem, three feet high, branching alternately; the branches distorted, and running into one another; leaves shaped like the point of a halbert, alternate, on short footstalks, covered with short hooded prickles, which fasten themselves to whatever rubs against them.—The flowers come out singly from the joints of the stalk, resting upon a cylindrical germ, which is near an inch in length, narrow at the base, but widening upwards; upon the top of it comes the calyx, spread open; then the petals spread open upon the calyx, of a pale yellow colour. Capsule rough, inversely conical, succulent before it is ripe, but then dry, with three longitudinal grooves, and wrinkled; seeds flattened, ovate, narrower at top, roughened with little prominent points. Browne observes that the plant is easily distinguished by its yellow flowers, tufted form, and stiff uncinated bristles; the seeds are disposed at some distance from each other in the pulp. Barham calls this *onagra*, from the resemblance the flower bears to that plant.

MILKWOOD.

BROSIMUM.

CL. 22, OR. 1.—*Dioecia monandria*, NAT. OR.—

GEN. CHAR.—See Bread-Nut, p. 114.

SPURIUM.

*Laurifolia arbor venenata folio acuminato, copiosum lac prebens ex quo inspissato viscus aucupum paratur.* Sloane, v. 2, p. 21, t. 167, f. 1, 2. *Foliis oblongis glabris alternis.* Browne, p. 369.

Leaves lanceolate-ovate, acuminate; aments pedicelled, ovate, axillary, in pairs; fruit soft.

This tree grows to a considerable size, and is accounted a good timber wood. The branches are beset with twigs, bearing leaves, on inch long pedicels, which are smooth, thick,

thick, and of an oval shape. It is frequently to be found in the woods of Jamaica.— All parts of the tree are extremely milky, which milk is accounted poisonous; it speedily becomes, when exposed to the air, tough and viscous, and makes excellent bird-lime.

See BREAD-NUT.

MILK-WORT—See LIGNUM VITÆ, BASTARD.  
MILLET—See GUINEA CORN.

## MILLET GRASS.

## MILUM.

CL. 3, OR. 2.—*Triandria digynia.* NAT. OR.—*Gramina.*

So called from *mille*, a thousand, because of the multitude of its grains.

GEN. CHAR.—Calyx a one-flowered glume, two-valved; valves ovate, acuminate, almost equal; corolla two-valved, less than the calyx; valves ovate, one less; nectary two-leaved, leaflets ovate, obtuse, gibbous at the base; the stamens three filaments, capillary, very short, with oblong anthers; the pistil has a roundish germ, two capillary styles, and pencil-form stigmas; there is no pericarp; seed single, covered, roundish. Four species of this genus were discovered in Jamaica by Swartz.

## 1. PUNCTATUM. DOTTED.

Branches of the panicle quite simple; flowers alternate in pairs, directed one way.

Culm from one to two feet high, simple, upright, round, jointed, smooth; leaves broadish, entire, striated, even; sheaths beardless, closed. Panicle upright, simple; branches alternate, scattered, upright. Florets pubescent, two together, one generally less than the other, on very short pedicels, one shorter than the other, surrounded at the base with a dusky ring. Rachis angular, filiform, rough-haired; calycine glumes equal, acuminate, rough-haired on the outside; corolline glumes smaller, equal, ovate, the outer more shortly awned; anthers very minute, brown; stigmas feathered, black purple; seed oblong, shining. Native of Jamaica in moist meadows.—Sw.

## 2. COMPRESSUM. COMPRESSED.

Spikes generally in threes; florets alternate, awnless, pressed close to the rachis; culm jointed-compressed in the middle; peduncles very long.

This is a perennial grass.

## 3. DIGITATUM. FINGERED.

Spikes digitated, generally in fours, sub-sessile; florets awnless, pressed close, directed one way; leaves cartilaginous-serrate at the edge.

This is an annual grass.

## 4. PANICUM. PANIC.

Spikes sub-digitate, alternate, approximating, filiform; florets directed one way, awnless, pressed close, three-cornered.

MILLET REED—See REED MILLET.

T t t

MINT.

## MINT.

## MENTHA.

CL. 14, OR. 1.—*Didymia gymnospermia*. NAT. OR.—*Verticillata*.

GEN. CHAR.—Calyx a one-leaved, five-toothed perianth; corolla one-petaled, four-parted, one segment broader, emarginate; stamens awl-shaped, two shorter; anthers roundish; the pistil has a four-cleft germ, a filiform style, and bifid stigma; no pericarp: calyx upright, with the seeds in the bottom, which are four, and small. The following species have been introduced.

## 1. VIRIDIS. GREEN.

Spikes oblong; leaves lanceolate, naked, serrate, sessile; stamens longer than the corolla.

This is commonly called *spear-mint*, and is the most useful species. It thrives well in Jamaica, is cultivated in most gardens, and may often be found in a wild state.—The leaves and tops of this plant are used in salads, and eaten as sauce with lamb and in soups; a conserve of them is grateful, and the distilled waters, both simple and spirituous, much esteemed. The virtues of mint are those of a warm stomachic, and carminative; in loss of appetite, nausea, and continual retching, there are few simples of equal efficacy. In cholicky pains, the gripes to which children are subject, henteries, and other immoderate fluxes, this plant frequently does good service. It likewise proves beneficial in many hysteric cases, and affords an useful cordial in languors and other weaknesses consequent upon delivery. The best preparation in these cases is a strong infusion of the dried herb in water (which is much superior to the green), or rather a tincture or extract prepared with rectified spirit. These possess the whole virtues of the mint; the essential oil and distilled water contain only the aromatic part; the expressed juice only the astringency and bitterishness, together with the mucilaginous substance common to all vegetables.

When mint is cut for drying, it should be done just when it is in flower, and on a dry day; for, if cut in wet weather, the leaves will change black. It should be tied in small bunches, and hung in a shady place, upon lines.

Lewis observes that mint is said to prevent the coagulation of milk, and hence recommended in milk diets; when dry, and digested in rectified spirits of wine, it gives out a tincture which appears by day-light of a fine dark green, but by candle light of a bright red colour. A small quantity is green by day-light or candle-light, but a large quantity seems impervious to common day-light; but, when held between the eye and the candle, or between the eye and the sun, it appears red. If put in a flat bottle it appears green sideways, but viewed edgewise red.

## 2. PIPERITA. PEPPERMINT.

Flowers in heads; leaves ovate-petioled; stamens shorter than the corolla.

This has smooth purple stalks, and the leaves are smaller than those of the *spear-mint*; they are lanceolate, serrate, very dark green, with purple mid-ribs and veins, a little hairy on the under side. The spikes of the flowers are shorter and thicker than *spear-mint*, and are broken or interrupted at bottom. The corolla is of a dark purple colour, the stamens longer than it. The stem and leaves are beset with many very minute glands, containing the essential oil, which rises plentifully in distillation.—*Pepper-mint* has a more penetrating smell than the other species, and a more pungent glowing

glowing taste, sinking as it were into the tongue, and followed by a sensation of coldness. Its stomachic, antispasmodic, and carminative, quantities, render it useful in flatulent colics, hysterical affections, retchings, and other dyspeptic symptoms, acting as a cordial, and often affording immediate relief. The official preparations are an essential oil, a simple water, and a spirit. The essence of pepper-mint is an elegant medicine.

## 3: PULEGIUM. PENNY-ROYAL.

Flowers in whorls; leaves ovate-blunt, sub-crenate; stems roundish, creeping; stamens longer than the corolla.

Penny-royal has a pale purple flower. It has a warm pungent flavour, and possesses the same general virtues as mint, and may be used for the same purposes, but mint is more effectual.

MENT, CAT—See CAT-MINT.

## MISLETOE.

## VISCUM.

CL. 22, OR. 4.—*Diœcia tetrandria*. NAT. OR.—*Aggregatæ*.

GEN. CHAR.—Male calyx a four-parted perianth; leaflets ovate, equal; no corolla; stamens four, filaments none, anthers oblong, acuminate, one growing to each calyx leaf. Female commonly opposite to the male—calyx a four-leaved perianth; leaflets ovate, small, sessile, deciduous, placed on the germ; no corolla; the pistil has an oblong germ, three-cornered, indistinctly crowned with a four-cleft margin, inferior; no style; stigma obtuse, scarcely emarginate; the pericarp a globular berry, one-celled, even; seed one, cordate, compressed, obtuse, fleshy. Three species are natives of Jamaica.

## 1. VERTICILLATUM. VERTICILLATED.

*Viscum*. Sloane, v. 2, p. 92. *Parasiticum, ramulis verticillatis, foliis ob-ovatis trinerviis, baccis tridentatis*. Browne, p. 3t6.

Stem whorled; leaves ovate, three-nerved, blunt.

This well known plant grows on all sorts of trees, and is very frequent in Jamaica.—It resembles in every respect the misletoe of the English oak; and is used in Jamaica for the same purposes, but Browne says he never knew it have any remarkable effect. That most esteemed is gathered from sweet-wood. Sloane speaks of it as good in asthmas; and the bruised berries, strained with oil and drank, cures stitches. Mr. Anthony Robinson mentions a boy afflicted with epilepsy, to whom he ordered a cup-full of the decoction of the misletoe two or three times a day, by which he was entirely cured in less than a week, without taking any other medicine. From the branches and unripe berries a good bird-lime is obtained; for this purpose the berries are boiled until they break, and then beaten and washed in water, and the bran taken away.

*Misletoes*.—The very same sort that grows in England upon oaks, pear-trees, and some others, grows in America upon dogwood, which is as hard as the English oak, and of the same virtue. It is good against the falling sickness, is accounted a specific

for most diseases of the head, and is one of the chief ingredients in the famous *pulvis epilepticus* of Riverius. The berries, bruised and the juice expressed from them, mixed with linseed oil, and taken inwardly, cures pleurisies, stitches, and all pains of the sides, relieves palsies, convulsions, and cramps; made into a cataplasm, ripens swellings and schirrous tumours or imposthumes.—*Barham*, p. 104.

2. OPUNTIODES. OPUNTIA-LIKE.

*Fiscum opuntioides ramulis compressis.* Sloane, v. 2, p. 93, t. 204.  
f. 1. *Parasiticum geniculatum aphyllum, ramulis compressis oppositis.* Browne, p. 357.

Stem proliferous, very much branched, leafless, compressed.

This seems, by its way of growth, to be near a kin to the *opuntia*, having no leaves, or rather stems; but what we must call the stem or first leaf at the coming out of the trunk of the tree is flat, somewhat roundish, of a very dark green colour, having at every inch and a half's distance, out of their sides only, opposite branches growing out of one another, after the manner of the Indian fig, being an inch and a half long, and one-eighth of an inch broad, the whole growing to a foot in length: at the ends of the branches are small yellowish flowers, two together; berries whitish, like those of the ordinary misletoe. It grows on trees.—*Sloane*.

3. FLAVENS. YELLOW.

Leaves ovate-veined; racemes axillary, in threes or fours on each side.

This is a shrubby species, with simple branches, ovate, sinuous, very broad, leaves, which are opposite, and footstalked; racemes several, upright, simple, axillary, and sub-umbellate; berries verticillate, placed at intervals, roundish, and umbilicate.

MISLETOE.

LORANTHUS.

CL. 6, OR. 1.—*Hexandria monogynia.* NAT. OR.—*Aggregate.*

This generic name is derived from two Greek words, signifying strap and a flower, the corolla being cut into straps.

GEN. CHAR.—Calyx—Perianth—of the fruit inferior; margin entire, concave—of the flower superior, or the margin entire, concave; corolla six-petaled, petals oblong, revolute, equal; the stamens six filaments, awl-shaped, fastened to the bases of the petals, the length of the corolla; anthers oblong; the pistil has an oblong germ, between the two calyxes, or inferior; style simple, the length of the stamens; stigma blunt; the pericarp an oblong one-celled berry; seed oblong.—Four species are natives of Jamaica.

1. AMERICANUS. AMERICAN.

*Parasitica foliis ovatis oppositis, racemis rarioribus alaribus.* Browne, p. 197.

Racemes somewhat branched, cymed; flowers nodding; leaves ovate, difform. Branches sub-divided, leafy, smooth, pale green, brittle; leaves petioled, opposite, entire, sub-coriaceous, nerved, pale; petioles short, compressed, smooth; racemes

racemes sub-divided, terminating, with three-cornered branchlets; the last pedicels trifid, one-flowered; flowers red; calyx double; lower undivided, pitcher-shaped, small; upper, margin of the germ, entire. Petals six, very long, contiguous below, spreading above, revolute; before they are unfolded forming a slightly incurved corolla; filaments fastened to the petals above the middle, filiform, purple; anthers oblong, vertical, yellow; germ ovate; style filiform, the length of the corolla; stigma blunt, pubescent; berry ovate, one-seeded — Sw. This approaches near to the *riscum*, both in its nature and berry, but all the flowers are hermaphrodite. This species is frequently found on mangrove trees about Hunt's Bay; and has been observed to grow into small twiggy shrubs beyond the careening place on the Palisadoes. — Browne.

## 2. OCCIDENTALIS. WESTERN.

*Riscum latioribus et subrotundis foliis, flore purpureo.* Sloane, v. 2, p. 92, t. 200, f. 2. *Parasitica foliis majoribus subrotundis, spicis florum simplicibus, alaribus.* Browne, p. 197.

Racemes simple; flowers irregular.

Branches divaricating, sub-divided, loose, round, rugged, brittle; leaves large, on short petioles, opposite, ovate-rounded, margined, spreading, nerved above, smooth, succulent, pale green. Racemes axillary, solitary, erect, shorter than the leaves, roundish, on very short thick peduncles; flowers sessile, minute, dark purple; calyx superior, minute, undivided; petals almost connate at the base, three a little shorter, upright, acute; filaments shorter than the petals, and placed on the middle of them; anthers three, ovate, yellow, fertile; three barren, hollowed on the sides for the fertile ones; germ inferior, roundish, covered with the calyx, and margined; style the length of the petals; stigma simple, blunt; berry roundish, viscid, one-seeded — Sw.

The following observations on this plant are from Mr. A. Robinson's manuscript:—  
 "I plucked some of the broad-leaved misletoe described by Sir Hans Sloane, the *scurrula* of Dr. Browne, which, upon chewing for a vertigo, I found the wood, flower, pedicels, and leaves, of a very astringent, and somewhat bitter, taste, leaving no small degree of acrimony upon the throat and palate. This proves that it is not merely astringent, for, as Parkinson says, 'the misletoe is hot and dry in the third degree, the leaves and berries beat and dry, and are of subtle parts, for some acrimony is in them, which overcometh the bitterness;' which remark is very just, for the acrimony remains a good while after the restringency is no more perceptible to the palate; therefore this plant is not astringent and viscid, as Quincey says, but restringent, bitter, and acrid, by which means it renders the saliva thin and fluid. Herman says it yields an acid spirit and an oil, by distillation. It is said to be a specific against the epilepsy. The nervous fibres are probably too much relaxed in epileptics, in which case their pores will also be necessarily too large; gentle astringents, such as misletoe, will therefore be useful; the misletoe especially, which, although by its astringency it strengthens the fibres, yet does not thicken the fluids, hence it has been of service in curing quartans, in which peculiar quality it resembles the bark, for it strengthens the fibres and thins the fluids. The leaves and flower pedicels seem to be endued with greater virtues than the stem, the bark of which is not to be despised, but the middle part is ligneous, insipid, and of no efficacy. Habitual drinkers of tea, especially those of a phlegmatic temperament, are sometimes afflicted with vertigos, which, in all probability, may be caused by drinking it too warm, by which means it may relax too much: but,

but, in dry constitutions, the tea drank warm, is rather of service to relax the fibres, which in such are generally too tense. The common Jamaica mistletoe is very acrid in the taste."

3. PARVIFOLIUS. SMALL-LEAVED.

Peduncles axillary, trifid; pedicels one-flowered; leaves ovate, entire.—*Sz.*

4. PAUCIFLORUS. FEW-FLOWERED.

Peduncles trichotomous, shorter than the leaves; leaves ob-ovate.—*Sz.*

MONKEY BREAD—*See* BAOBAB.

## MOONWORT.

## OSMUNDA.

CL. 24, OR. 2.—*Cryptogamia filices.* NAT OR.—*Filices.*

GEN. CHAR.—Capsules distinct, disposed in a raceme in such manner as to look the same way, or else heaped on the back of the pinna or division of the frond, sessile, sub-globular, opening transversely, without any ring; seeds very many, extremely minute. Six species are indigenous to Jamaica.

1. HIRSUTA. SHAGGY.

*Lunaria elatior matricariæ folio spica duplici.* Sloane, v. 1, p. 71, t. 25, f. 6. *Subhirsuta scapis caulinis geminis, frondæ bipinnata lobata et sub-crenata.* Browne, p. 107.

Scapes caulife in pairs; frond bipinnate, hirsute.

This rises a foot or more. In its higher spikes, which are double, it exactly agrees with the following species, *adianthifolia*; only the pinnules are longer, narrower, not cut quite into the mid-rib, and of a paler green colour, something in their divisions like the leaves of *matricaria*.—*Sloane.* Browne calls it the *hai y osmunua*, with crenated, oval, lobes, common in Jamaica, growing in cool and rocky places, seldom rising above fifteen inches.

2. ADIANTHIFOLIA. ADIANTHUM-LEAVED.

*Lunaria elatior, adianti a'bi folio, duplici spica.* Sloane, v. 1, p. 71.

Scapes cauline in pairs; frond super-decompound.

This is sometimes about a foot, but mostly six or seven inches high, having a very slender green stalk, at first coming out of the earth of a dark colour. At about four inches from the ground, out of one side of the stalk, arises one branch, on which twigs are set alternately, having several broad irregularly figured roundish pinnules, sometimes deeply cut, at other times a little indented upon the edges, of a pale green colour, like *adiantum album*, and having many furrows, appearing radiated. From the axil of this branch rise two round small green stalks, two inches long, towards the tops of which are several small bunches of capsules, at first green, afterwards ferruginous: the root is covered with blackish hair, having several fibrils. It grew on a rock by the banks of the Rio Cobre.—*Sloane,*

3. PELTATA.



## 3. PELTATA. PELTATE.

Shoot creeping; fructifications pedate, distinct, roundish-halved, entire; fronds dichotomous, with linear segments.—Sw.

This is thought to be a species of *acrostichum*.

## 4. AURITA. EARED.

Scapes radiate; fronds bipinnate at bottom, pinnate at top; pinnae at the base eared upwards, serrate, convex, shining.—Sw.

## 5. LINEATA. LINEAR.

Fronds pinnate-lanceolate, obliquely cordate at the base, entire at the edge; the fructifying pinnae crenulate, scaly in the middle.—Sw.

## 6. POLYPODIOIDES. POLYPODIUM-LIKE.

Fronds lanceolate, pinnatifid; segments confluent, entire, ascending with raised dots at the edge; scape lanceolate; pinnae remote.—Sw.

## No English Name.

## MOOREA.

CL. 3, OR. 1.—*Triandria monogynia*. NAT. OR.—*Ensata*.

So named in honour of Robert More, Esq. of Shrewsbury.

GEN. CHAR.—Cal x two-valved spathes; corolla six-petaled, three inner parts spreading, all connected at the claws into a tube; the stamens have three short filaments, with oblong anthers; the pistil has an inferior germ, a simple style, and three bifid stigmas; the pericarp is a three-cornered capsule, three-grooved, three-celled; seeds very many, round. One species is a native of Jamaica.

## PLICATA. PLEATED.

Scape round; leaves petioled, oblong, nerved, pleated; racemes bifid.

Bulb ovate, covered with red membranaceous coats, yellow in the middle; leaves radical, from two to three feet long, ensiform, broad, narrower, and as it were petioled at the base, towards the root membranaceous, and somewhat sheathing, purple, longitudinally six-nerved, folding over each other, very smooth; scapes rather longer than the leaves, roundish or compressed a little, somewhat striated, smooth, nodding a little at top, terminated by a spathe-shaped, lanceolate, upright, nerved, leaflet, from the sheathing base of which issues a peduncle, two inches long, and bifid; each pedicel has a small leaflet under it. Flowers white, spathaceous, in a sort of head, rising gradually on very short pedicels. Spathe two-leaved, ancipital; leaflets ovate, acute, slightly striated, keeled, one of them bifid, smooth, inclosing from six to ten flowers, separated by ovate, acute, membranaceous, pale, scales. Corolla six-petaled, petals oblong, equal, from upright spreading, veined, white, flat, with the base contiguous to the apex of the germ; filaments shorter than the petals, about the apex of the germ, shortly connate; anthers linear, bifid at the bottom; germ ob-ovate, sub-trigonal; style awl-shaped, the length of the stamens; stigma three-parted, the parts lanceolate.

lanceolate, upright. Native of the mountainous parts of Jamaica, flowering the whole year, opening at four o'clock in the afternoon, one flower only coming out at a time.

MORINGA—See HORSE-RADDISH TREE and NICKARS.

### MORASS-WEED OR HORN-WORT.

### CERATOPHYLLUM.

CL. 21, OR. 8.—*Monoecia polyandria*. NAT. OR.—*Inundate*.

This generic name is derived from two Greek words signifying horned leaf.

GEN. CHAR.—Male calyx a many-parted perianth, divisions subulate, equal; no corolla; the stamens are filaments, double the number of the divisions of the calyx (sixteen or twenty), hardly conspicuous; anthers oblong, erect, longer than the calyx. Females, on the same plant with the males—calyx a many-parted perianth, divisions subulate, equal; no corolla; the pistil has an ovate-compressed germ, no style, stigma obtuse, oblique; no pericarp; the seed a nut, ovate, unilocular, acuminate. One species is a native of Jamaica.

DEMERSUM. DROWNED.

*Folii verticillatis et tuberculatis, multifariam incis; laciniis conicis acutis.* Browne, p. 345.

Leaves two-fold, dichotomous; fruits three-horned.

This plant is very common in all the brackish waters of Jamaica, and generally used to cover fish or water plants, which are carried a long way to market; for it retains a deal of moisture, which keeps them fresh and cool for a considerable time. It may be also used, with great success, to cover the tender seeds of the cacao, for a few days after they are planted.—*Browne*.

### MOSSES.

### MUSCUS.

CL. 24, OR. 2.—*Cryptogamia musci*.

WHAT botanical writers strictly understand by the word *moss*, is a class of plants appearing of an inferior rank to the common vegetables; the less perfect genera of which have been supposed to be wholly destitute of flower or seed, or any thing analogous to either, and to consist of simple, similar, and uniform, parts. The genera a little above these have some diversity of parts, and carry something that looks analogous to vegetation in the common way, having a resemblance of those parts which serve other plants for their fructification. The more perfect genera of the mosses not only consist of different parts, but have also their appropriated organs, containing a pulpy matter, which finally becomes dry, and assumes the form of a fine and subtle powder, composed of granules, each of which is either a seed or a granule of farina, serving for the propagation of the species.

The more imperfect mosses are distinguished from the others by their appearance to the naked eye; they are either in form of a fine lanugo or down, covering the surface of

of different bodies; or else they appear as slender filaments, or foliaceous bodies, floating about in the water; or as filaments of a tougher texture, hanging down from the branches of old trees; or as little shrubs, or single horns, growing erect on the parched earth of mountains and heathy places; or, finally, as broad and foliaceous bodies, spreading themselves over the dry barks of trees or rocks, without any pedicel or other support.

The more perfect kinds of mosses are found in the shape of small but regular plants, divided into several branches, and clothed with leaves: these are of various forms and structures; some being broad and thin, others slender as hairs; some pellucid, others opaque; some smooth, others hairy. From the alæ of these leaves, in some kinds, and from the summit of the stalks in others, there arise heads or capsules of various figures, but all unilocular; some of these are naked, and others covered with a calyptra or hood; some stand on long pedicels, and others are placed close to the stalks: these heads are usually called capsules, which contain the seeds or farina. Some of the mosses, it is evident, approach to the nature of plants which have their male and female parts in the same flower, and others to those which have them in different ones. The following are the different kinds of mosses hitherto discovered in Jamaica:

I. POLYTRICHUM.

MANY-HAIRED.

GEN. CHAR.—Capsule oblong, sometimes quadrangular, placed on a quadrangular apophysis; peristome double; outer with thirty-two short teeth, united at the base, incurved; inner a flat membrane, transverse, glued to the apexes of the teeth of the inner one; calyptra hairy—Male flowers discoid, or a circular bud, on a different plant, terminating. One species is a native of Jamaica.

CONVULUTUM.

CONVOLUTE.

Stem simple; leaves linear, involute, serrate at top, twisted when dry; capsule cylindrical, nearly erect.

II. BRYUM.

BUDDING.

GEN. CHAR.—Capsule ovate-oblong; fringe double; outer of sixteen broadish teeth; inner a lacinated membrane; veil smooth; fruit terminal. Swartz notices the following species as natives of Jamaica.

1. AGRARIUM.

FIELD.

Stemless; capsules cylindric, somewhat erect, subulate; leaves lanceolate-acute.

2. ACUMINATUM.

ACUMINATE.

Capsules cylindric, erect-subulate; branches caulescent, matted; leaves linear.

3. LYCOPODIODES.

LYCOPODIUM-LIKE.

Capsules erect; peduncles short, solitary; branchlets elongate, few; leaves patent, linear, acute, serrulate, somewhat undulated.

4. PARASITICUM.

PARASITICAL.

Capsules somewhat erect; peduncle very short; branchlets crowded, ramose, short; leaves patent-linear.

U u n

5. CALYCINUM.

## 5. CALYCINUM. CALYXED.

Capsules nearly erect; involucre bristly, longish, longitudinal, peduncled; branchlets erect; leaves linear-cirrhose.

## III. FONTINALIS.

## FOUNTAIN.

GEN. CHAR.—Capsule oblong, with the mouth ciliate; opening with an acuminate lid; covered with a sessile, smooth, conical, veil, and included in a pitcher-shaped, perichætium. Swartz enumerates four species as natives of Jamaica.

## 1. CRISPA. CURLED.

Ramose pinnate; leaves duplicate-bifarious, roundish, patent, imbricate, undulate; capsules lateral on the back part.

## 2. DISTICHA. DISTICH.

Branchlets simple; leaves bifarious, patent, retuse, imbricate plane; capsules lateral, on the back part.

## 3. FILICINA. FERN.

Erect pinnate; pinnae approximating; leaves five-pointed, ovate, acute; capsules axillary.

## 4. HYPNOIDEA. HYPNUM-LIKE.

Creeping, erect, sub-divided, scattered; leaves lanceolate; two-keeled, appressed; capsules axillary.

## IV. MNIMUM.

GEN. CHAR.—Capsule with a lid; calyptra smooth; bristle from a terminating tubercle—Male flowers headed or discoid. Swartz discovered three species in Jamaica.

## 1. TOMENTOSUM. DOWNY.

Dichotomous, erect, downy; leaves subulate; capsules spherical.

## 2. SPHERICARPON. ROUND-CAPSULED.

Erect, downy, filiform; branchlets simple, bundled, terminating; leaves capillary; capsules round.

## 3. STRICTUM. STIFF.

Caulescent; leaves capillary; peduncles elongate, terminal; capsules oblique.

## V. HYPNUM.

GEN. CHAR.—Capsule ovate-oblong; fringe double; outer of sixteen broadish teeth; inner a variously divided membrane; veil smooth; fruit lateral. This is a numerous genus, Swartz found no less than twenty-seven species in Jamaica.

## 1. SPINIFORME. SPINE-FORMED.

Erect, simple; leaves linear-subulate, serrulate, ending in a bristle; capsule ovate, lid oblique.

## 2. PALMATUM.

## 2. PALMATUM. PALMATED.

Frond simple, pinnated, sub-palmate; apex peduncled; pinnae distant, patent.

## 3. POLYPODIÖIDES. POLYPODIUM-LIKE.

Frond simple, pinnate, lanceolate, erect; pinnae obtuse; capsule peduncled, incurved.

## 4. ASPLENIÖIDES. ASPLENIUM-LIKE.

Frond sub-ramose, pinnated, erect, linear; apex peduncled; capsule incurved.

## 5. PULGENS. SHINING.

Dispersed, long, pendulous; fronds compressed; leaflets distich, folded-keeled, shining.

## 6. DIAPHANUM. DIAPHANOUS.

Scattered, somewhat erect, sub-divided; leaves bifarious, ovate, acuminate, pellucid, plain.

## 7. ALBICANS. WHITE.

Creeping, ramous, compressed; branchlets scattered; leaves bifarious, ovate, acute, pale; capsules half-nodding.

## 8. GLABELLUM. SMOOTH.

Divaricate, nearly erect, ramose; leaves bifarious, imbricate, oblong, obtuse, plain, somewhat toothed.

## 9. PATULUM. SPREADING.

Filiform, creeping; branchlets scattered, short; leaflets lanceolate, reflex-spreading.

## 10. REPTANS. RUNNING.

Running; branchlets scattered, bundled, rooting, filiform; leaflets capillary, spreading; capsules nodding.

## 11. FASCICULATUM. BUNDLED.

Erect; branchlets terminal, heaped, sub-divided; twigs compressed; leaves oblong, decussated, scattered.

## 12. TAMARISCI.

Creeping, pendulous, longish, flexuose; branchlets scattered, short, round, recurved; leaflets heaped, ovate, spreading.

## 13. NIGRESCENS. BLACKISH.

Filiform, pendulous; branchlets short, round, scattered; leaves equal, subulate, spreading.

## 14. DENSUM. DENSE.

Erect, round? branchlets scattered, simple; leaflets approximate, lanceolate, acute, keeled, spreading.

## 15. FLEXILE. FLEXIBLE.

Creeping, pendulous, longish, flexuose; branchlets scattered, short, round, recurved; leaflets heaped, ovate, spreading.

## 16. COMPOSITUM. COMPOUND.

Branchy, pinnated-scattered; branchlets heaped; peduncles short; capsules erect; calyptrcs hairy.

## 17. POLYTRICHOIDES. POLYTRICHUM-LIKE.

Round, erect, simple; leaves spreading; peduncles short; capsule erect; calyptrc hairy.

## 18. CAPILLARE. CAPILLARY.

Creeping, filiform, ramose; branches heaped, capillary; leaflets appressed, subulate; capsules ovate, erect.

## 19. DEPRESSUM. DEPRESSED.

Heaped, creeping, ramose; branchlets depressed; leaflets linear-lanceolate, spreading, when dry-curved; capsules nodding.

## 20. TRIMOPHYLLUM.

Creeping; branches distant, erect; leaves capillary, patent; capsules erect. — *Muscus*. Sloane, v. 1, t. 25, f. 1.

## 21. MICROPHYLLUM. SMALL-LEAVED.

Heaped, creeping, ramose; branchlets filiform, round, erect; leaflets incumbent, subulate; capsules oblique.

## 22. CÆSPITOSUM. TURFY.

Heaped, simple, nearly erect, round-compressed; leaves ovate-lanceolate; peduncles short; capsule erect.

## 23. PUNGENS. SHARP.

Heaped, erect, round, ramose; apex attenuated, acute; leaflets lanceolate, subulate, spreading, somewhat rigid; peduncles capillary, short.

## 24. CONGESTUM. HEAPED.

Heaped, ramose, declined; branches nearly erect; apex inflexed; peduncles short.

## 25. TETRAGONUM. FOUR-CORNERED.

Creeping; branches scattered, nearly erect, four-cornered; leaflets tetrafarious, imbricate, concave.

## 26. TORQUATUM. TWISTED.

Creeping, heaped; branches erect, round; leaves dry, spiral, appressed, calyptrc coriaceous, five-parted at the base.

## 27. CIRRHOSUM. CIRRHOSE.

Creeping, heaped; branches sub-divided; leaflets dry, revolute; capsules globose; calyptrcs many-parted at the base.

The

The following generally belong to the third order, *hepatica*, of the class *cryptogamia*.

VI. JUNGERMANNIA.

This was so named from Louis Jungermannus, professor of botany at Altorff.

GEN. CHAR.—Male flowers sessile, clustered on the leaves, stem, frond—Female capsule peduncled, naked, arising from the sheath, four-valved: seeds attached to the elastic filaments. Swartz has twenty-eight species of this genus natives of Jamaica.

1. ADIANTHIOIDES. ADIANTHUM-LIKE.

Erect, slightly divided; leaves ovate, oblique, ciliate; fruit terminal.

2. CRISTATA. CRESTED.

Creeping, with erect branches; leaves lanceolate-acute, spread incumbent, serrate on the upper margin, below lobed, connivent, crested.

3. PROSTRATA. PROSTRATE.

Filiform, nearly simple, creeping, prostrate, pinnate; leaves alternate, ovate, entire.

4. PALLENS. PALE.

Erect, branched; fronds pinnate, caulescent; leaves incumbent, roundish, entire, half-hearted at the base; sheaths one-leafed, retuse, funnel-form.

5. SIMPLEX. SIMPLE.

Caulescent; fronds pinnate, filiform, creeping; fronds erect, simple; leaves ovate, distant, serrate-ciliate; fruit terminal.

6. PERFOLIATA. PERFOLIATE.

Caulescent; branches compound, pinnate, crowded, erect, undivided; leaves perfoliate, incumbent, one-rowed, ovate, entire.

7. CONNATA. CONNATE.

Caulescent, pinnated; leaves opposite, incumbent, retuse, and slightly emarginate at top, united and two-toothed behind; fruit terminal; sheath denticulate.

8. TENERA. TENDER.

Caulescent, pinnate, creeping, crowded; leaves alternate, distant, roundish, entire; stipules minute, two-toothed.

9. SERRULATA. SERRULATE.

Caulescent; fronds pinnate, crowded, erect, nearly simple, obtuse, doubly pinnate above; leaves ovate, concave, bifid, serrate; fruit terminal; sheath subulate.

10. JUNIPEROIDEA. JUNIPER-LIKE.

Caulescent, erect, nearly simple, rigid, doubly pinnate above; leaves lanceolate, falcate, bifid, one-rowed; fruit terminal.

11. CAPILLARIS.

## 11. CAPILLARIS. CAPILLARY.

Caulescent, creeping, branched, capillary, above bi-pinnated; leaves somewhat imbricate, all three-parted.

## 12. CUPRESSINA. CYPRESS.

Caulescent, procumbent, crowded, pinnate, bi-pinnate above; leaves imbricate, convex, four-cleft.

## 13. TRANSVERSALIS. TRANSVERSAL.

Caulescent; frond transversal, creeping, doubly imbricate; leaves roundish, entire.

## 14. FLAVA. YELLOW.

Creeping, branched, doubly imbricate; leaves roundish, lower ones minute, bifid; sheath one-leafed, retuse.

## 15. DIFFUSA. DIFFUSED.

Caulescent, much branched; fronds forked, erect, doubly imbricate; leaves ovate, convex; lower ones roundish, denticulate.

## 16. STOLONIFERA.

Caulescent, creeping, filiform; fronds erect, crowded, sub-divided, doubly imbricate; leaves lanceolate, three-toothed, one-rowed, lower ones minute, roundish.

## 17. BRACHIATA. BRACHIATE.

Caulescent, erect, forked, doubly imbricate; leaves ovate, flat, lower ones roundish, convex.

## 18. ATRATA. BLACK.

Caulescent, much branched, pendulous, capillary, doubly imbricate; leaves ovate, retuse; lower ones minute, hearted, cloven.

## 19. FILIFORMIS. FILIFORM.

Caulescent, erect, filiform, nearly simple, doubly imbricate; leaves roundish, entire, lower ones minute.

## 20. FHLICINA. FERN.

Caulescent, erect, branched, pinnate, linear, doubly imbricate; leaves ovate, acute, serrulate, lower ones slightly emarginate, toothed.

## 21. TOMENTOSA. DOWNY.

Caulescent, erect, crowded, pinnated, doubly imbricate; leaves lacinate, downy, ciliate; fruit terminal, solitary.

## 22. BIPARIA. TWO-POINTED.

Erect, nearly simple, crowded, imbricate two ways; leaves ovate, acute, denticulate; fruit terminal.

## 23. SINUATA



23. SINUATA. SINUATE.

Stemless; frond flat, pinnatifid, sinuate; the extremities unequally two-lobed; peduncles shorter than the frond.

24. FUCOIDEA. FUCUS-LIKE.

Stemless, erect, supra-decompound; leaves and leaflets opposite, the latter linear.

25. BIPINNATA. DOUBLY-PINNATE.

Stemless, procumbent, branched, bi-pinnate; divisions and sub-divisions linear, acute.

26. DICHOTOMA. DICHOTOMOUS.

Stemless, linear, forked, nearly erect.

27. LINEARIS. LINEAR.

Stemless, frond creeping, linear, forked, divaricate.

28. POEYPHYLLA. MANY-LEAVED.

Stemless; fronds crowded, somewhat creeping, lacinate and palmate; fruit radical.

VII. MARCHANTIA.

This was so named in honour of Nicholas Marchant, M.D.

GEN. CHAR.—Male calyx salver-shaped, with numerous anthers bedded in its disk—Female calyx peduncled, peltate, flowering underneath; capsules bursting at their summits; seeds attached to elastic fibres. One species is a native of Jamaica.

HIRSUTA. HAIRY.

*Muscus saxatilis vel lichen*, &c. Sloane, v. 1, p. 69. *Terrestris viridis, foliis oblongo lobatis, pedunculis longioribus, capitulis palmatis*. Brownë, p. 85.

Sloane and Browne call this *common ground liverwort*, very common on the moist shady brinks of rivers. It is said to be the *lichen* of Dioscorides and Galen. Browne says it is a gentle sub-astringent cooler and laxative; and may be very properly ordered in all cooling apozems made use of in burning fevers; as well as for foulness and exuberations of the skin. It is the principal ingredient, he says, in the *putvis antilyssus*, which was so much spoken of as a cure for the *rabies canina*. The decoction is said to be good in jaundice. Mr. John Lindsay, surgeon of this island, sowed the fine dust from the fructification of this plant, also of a species of *lycopodium* and *bryum*, and, in a proper situation, found them grow readily.

VIII. RICCIA.

So named in honour of P. R. Riccio, senator of Florence.

GEN. CHAR.—No calyx nor corolla; anthers cylindrical, sessile, on the germ, perforated by the style; capsule globular, crowned with the withered anthers; seeds many, hemispherical, pedicelled. One species was discovered in Jamaica by Swartz.

RETICULATA. NETTED.

Stems difform, lacinate, smooth, netted.

*Moss*

• *Moss on Trees.*—The growth of large quantities of moss on any kind of tree is a dis-temper of very bad consequence to its increase, and much damages the fruit of the tree. The present remedy is the scraping it off from the body and large branches, by means of a kind of wooden knife that will not hurt the bark, or with a piece of rough hair-cloth, which does very well after a soaking rain. But the most effectual cure is the taking away the cause. This is to be done by draining away all the superfluous moisture from about the roots of the trees, and may greatly be guarded against in the first planting of the trees, by not setting them too deep.

If trees stand too thick in a cold ground they will always be covered with moss; and the best way to remedy the fault is to thin them. When the young branches of trees are covered with a long and shaggy moss, it will utterly ruin them; and there is no way to prevent it but to cut off the branches near the trunk, and even to take off the head of the tree if necessary; for it will sprout again: and if the cause be in the mean time removed by thinning the plantation, or draining the land and stirring the ground well, the young shoots will continue clear after this.

If the trees are covered with moss in consequence of the ground's being too dry, as this will happen from either extreme in the soil, then the proper remedy is the laying mud from the bottom of a pond or river pretty thick about the root, opening the ground to some distance and depth to let it in; this will not only cool it, and prevent its giving growth to any great quantity of moss, but it will also prevent the other great mischief which fruit trees are liable to in dry grounds, which is the falling off of the fruit too early.

The mosses which cover the trunks of trees, as they always are freshest and most vigorous on the side which points to the north, if only produced on that, serve to preserve the trunk of the tree from the severity of the north winds, and direct the traveller in his way, by always plainly pointing out that part of the compass.

## MOUNTAIN BROOM.

## CALEA.

CL. 19, OR. 1.—*Syngenesia polygamia equalis.*NAT. OR.—*Compositae.*

GEN. CHAR.—See Halbert-Weed, p. 363.

## SCOPARIA.

*Arborea ramossissima; ramulis teretibus, quadrato-sub-marginatis; foliolis paucioribus minibus linearibus.* Browne, p. 316, t. 34, f. 4.

Stem suffruticose; branches almost opposite, angular.

This is a shrub or small tree; stem the height of a man or more, branched towards the top, even, streaked, wrinkled, with an ash-coloured bark. Twigs abundant, four-sided, sub-divided, stiff, almost naked, streaked, smooth, silvery ash-coloured.—Leaves sessile, minute, alternate, oblong, smooth; the branches are sometimes terminating and leafless. Flowers solitary, leafless, sessile, small, white; scales of the calyx very many, minute, whitish; corollules twenty to thirty; stamens above the corolla; style undivided, stigma blunt; receptacle naked: the outer stamens seem to be barren.—Sw. It is a native of Jamaica, growing in the coldest parts of the mountains. It resembles the European broom, and the only tree of the same appearance in this island. The leaves are very small, and but few on any part of the plant.—Browne.

Gärtn.

Gærtner, who has made a distinct genus for this plant, observes that it differs from *galea* both in receptacle and down; from *chrysocoma* in the latter only; and consequently that it is allied more nearly to the latter than the former.

See HALBERT-WEED and STARWORT.

MOUNTAIN CABBAGE—See CABBAGE-TREE.

MOUNTAIN CALALU—See POKEWEED.

MOUNTAIN DAMSON.

QUASSIA.

CL. 10, OR. 1.—*Decandria monogynia*.

NAT. OR.—*Gruinales*.

GEN. CHAR.—See Bitter-Wood, p. 94.

1. SIMARUBA.

Flowers monoecious; leaves abruptly pinnate; leaflets alternate, sub-petioled; petiole naked; flowers in panicles.

This tree grows to a considerable height and thickness, with alternate spreading branches: the bark on the trunk of old trees is black and a little furrowed, but that of younger trees is smooth, gray, and here and there marked with broad yellow spots: the wood is hard, white, and without any remarkable taste. Leaves numerous, alternate, composed of several leaflets (from two on each side to nine) oblong or nearly elliptic, sharp at the end, smooth above, and of a deep green colour, beneath whitish, placed alternately on very short foot-stalks. Flowers on branched spikes, or long wide axillary panicles, of a yellow colour.

According to Linneus and others, the male and female flowers are mixed in the same panicle; but Dr. Wright says that the female flower is never found on the same tree with the male, in Jamaica. The small calyx is cut into five obtuse erect segments in both; the five petals are sessile, equal, lanceolate, bent outwards, three times the length of the calyx, into which they are inserted. Nectary composed of ten roundish or ovate villose scales, inserted in a ring at the interior base of the filaments. Receptacle marked with ten grooves. The male flowers have an abortive germ, depressed, five-streaked, covered by the nectaries, but without any style or stigma. The fertile flowers have no stamens, but five roundish germs adhering together, with a cylindrical erect style, about the length of the corolla, divided at the top into five recurved permanent stigmas. The fruit is ovate, black, smooth, pulpy, composed of five drupes, but seldom more than two or three arrive at maturity; each of these contain an oblong pointed nut with a flattish kernel.—*Woodville*. Gærtner names them berries, which he describes as five in number, from upright spreading, ovate, convex on one side, beveled with a blunt angle on the other, black, smooth, one-celled; the pulp fungose, thick, hardish; the cell invested with a cartilaginous membrane: the common receptacle small, fleshy, sub-pentangular; the proper receptacle a thin membranaceous *lacinula*, springing from the internal angle of the cell, and inserted into the side of the seed below the tip. Seed ovate-oblong, very slightly compressed above, thickened and rounded below. Gærtner remarks that the berries which he examined were very dark, smooth, and shining. This tree is known in Jamaica by the name of *mountain damson*, *bitter damson*, or *stavewood*, but considerable doubts are entertained whether

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this be the real *simaruba*. Dr. Wright says that in 1773, specimens of the fructification were sent from Jamaica in spirits to Dr. Flope, at Edinburgh, with some dried bark from the roots; and that the following year specimens were also transmitted to Dr. John Fothergill, of London, who sent them to Linneus at Upsal. The drug is the bark of the roots, which is rough, scaly, and warted; the inside, when fresh, is of a full yellow, but, when dry, paler; it has little smell, and the taste is bitter, but not disagreeable. Macerated in water, or in rectified spirit, it quickly impregnates them with its bitterness, and with a yellow tincture; the cold infusion in water is rather stronger in taste than the decoction; which last grows turbid and of a reddish brown when it cools. Dr. Wright says most authors who have written on the *simaruba* agree, that in fluxes it restores the lost tone of the intestines, allays their spasmodic motions, promotes the secretions by urine and perspiration, removes the lowness of spirits attending dysenteries, and disposes the patient to sleep; the gripes and tenesmus are taken off, and the stools changed to their natural colour and consistence. In a moderate dose it occasions no disturbance or uneasiness, but in large doses it produces sickness at the stomach and vomiting. Dr. Cullen asserts he has found an infusion of chamomile flowers more useful as a remedy for dysentery. Dr. Wright recommends two drachms of the bark to be boiled in twenty-four ounces of water to twelve, the decoction is then to be strained and divided into three equal parts, the whole of which is to be taken in twenty-four hours; and, when the stomach is reconciled to this medicine, the quantity of the bark may be increased to three drachms. To this decoction some join aromatics, others a few drops of laudanum to each dose.

Z. EXCELSA. TALL.

Flowers hermaphrodite, five-stamened, paniced; leaves unequally pinnate; leaflets opposite, petioled; petiole naked.

This species was discovered in Jamaica by Swartz.

See BITTERWOOD.

MOUNTAIN DOGWOOD—See DOGWOOD.

MOUNTAIN EBONY—See EBONY.

#### MOUNTAIN GRASS.

#### ANDROPOGON.

CL. 23, OR. 1.—*Polygamia monoccia*. NAT. OR.—*Gramina*.

This name is derived from a Greek word signifying main-beard.

GEN. CHAR.—Hermaphrodite flowers sessile; calyx a one-flowered glume, two-valved; corolla a two-valved glume, less and more slender than the calyx, awned at the base; nectary two-leaved; stamens three filaments; anthers oblong, forked at both ends, incumbent; the pistil has an oblong germ, two styles, and oblong feathered stigmas; there is no pericarp, glumes of the corolla and calyx involving and inclosing the seed; seed solitary, oblong, covered, armed with the awn of the corolla, which easily falls off.—Male flowers peduncled, single, or in pairs to each hermaphrodite; calyx, corolla, and stamens, as in the others, only the corolla has no awn. Seven species are indigenous to Jamaica.

1. VIRGINICUM.

1. VIRGINICUM. VIRGINIAN.

*Gramen dactylon bicornne tomentosum minus*. Sloane, v. 1, p. 110, t. 8, f. 2. *Altissimum gracile; panicula tenui et longiori, spicis plurimis gradatim nascentibus, floribus confertis*. Browne, p. 365.

Spikes of the panicle conjugate; peduncles simple; rachis woolly; floscules awnless, the male one wanting.

This has several pine inch long leaves, like *cyperus* leaves, turning red when dry; the culms rise from the centre of the leaves, a foot and a half high, with swelling joints; having three leaves, embracing the stem at each joint; from the axils of these leaves rise small pedicels bearing two spiked panicles, standing like a pair of horns, full of long soft hair, softer than cotton.—Sloane. Browne says this plant was frequent in the parish of St. Elizabeth, with a slender stem, and the flowers placed in distant tufts, on long hairy footstalks; the calycine glumes also hairy, terminating in long bristles.

2. BICORNE. TWO-HORNED.

*Gramen dactylon bicornne tomentosum maximum, spicis numerosissimis*. Sloane, v. 1, p. 42, t. 15. *Erectum, montanum; spica multiplici comosa et lanuginosa*. Browne, p. 365.

Spikes of the panicle conjugate; peduncles branching very much; rachis woolly; awn caducous; male floscule wanting.

Culm three to six feet high, upright, simple, round, smooth; leaves serrate; panicle fastigate, a foot long, loose, but not diffused; peduncles numerous, from the terminating sheaths of the culm, upright, branched, sub-divided; pedicels filiform, long, upright. Spicules small, terminating, hairy, whitish, solitary or twin; floscules awnless, concealed by villose hairs; hermaphrodite, sub-sessile, with one or two males by the side of it; these are pedicelled, and much smaller. It is called *fox-tail grass*.—Sw. Browne calls it *mountain grass*, who says the peduncles are covered with a long white down, and the spikelets, which rise by pairs on long erect supporters, meet in a kind of umbel at the top.

3. INSULARE. INSULAR.

*Gramen avenaceum, panicula minus sparsa, glumis alba sericea lanugine obductis*. Sloane, v. 1, p. 43, t. 14, f. 2. *Avenaceum asurgens, panicula laxa lanuginosa*. Browne, p. 365.

Panicle loose, smooth; floscules double, awnless; one pedicel shorter; calyxes woolly.

This has a thin contracted panicle, a three-glumed calyx, and the wool of the calyx pressed close. Swartz thinks the conformity of the valves, and the absence of the awn, remove this species from the *andropogons*. The male flowers also are frequently wanting. It may be the same as *panicum lanatum*.—See Panic Grass. Sloane describes it as follows: The uppermost joint had a six inches long leaf, embracing the culm; this joint was a foot long. The panicle was four inches long, not very sparse, composed of many spikes, growing from the top of the culm without order; each peduncle had fixed to it, by short footstalks, several reddish oblong seeds, lying between the chaffy glumes, which are covered with a silky cotton. Browne calls it *sour grass*, and says "The roots and leaves of this plant, pounded and applied externally, are observed to cure bites and ulcers of all sorts, with more certainty than most other things used for that

that purpose. It is a strong detersive and agglutinant; and, doubtless, would make an excellent ingredient in vulnerary apozems and infusions. Simples of this kind, and all those in general that are of a stimulating nature, have been always observed to answer much better in warm climates, than ointments and regular dressings; nor is it unnatural, where the habit is much relaxed."

This plant is found in great abundance, growing in fences, and at the feet of walls, and the banks of gullies, shoots luxuriantly, and retains its verdure in the driest seasons. The cattle will not meddle with it whilst it is green; but, after it has been cut, and dried in the sun, it makes an hearty fodder for them; and has the merit of being vigorous and useful, when other grasses are scorched and perished for want of rain.— In the time of great drought therefore, during crop, it may be cut and cured for road cattle.—*Long*, p. 765.

#### 4. ALOPECUROIDES. POSTAIL-LIKE.

*Gramen dactylon, alopecuroides facie, panicula longissima e specie plurimis tomentosis constante.* Sloane, v. 1, p. 113, t. 70, f. 1.

Panicle loose; rachis woolly; a twisted awn to each floscule.

Culm jointed, rising four feet, leaves a foot long. Panicle, consisting of many spikes, about a foot long; spikes an inch long from all sides of the stalk, closely set, and covered with white long soft down, appearing like fox-tail grass. Linneus observes that the down is longer than the flowers, even in the very glume.

#### 5. SACCHAROIDES. SUGAR-CANE.

Branches of the panicle simple; florets in pairs, hermaphrodite, awned, sessile, the other awnless pedicelled, withering; pedicel and rachis woolly.—*Sw.*

#### 6. FASTIGIATUS. FASTIGIATE.

Spikes of the panicles solitary; peduncles elongated, nearly flat topped; rachis woolly; florets awned; the male fertile.

#### 7. BREVIFOLIUS. SHORT-LEAVED.

Spikes lateral, solitary; florets alternate, remote, awned; culm jointed, compressed.—*Sw.*

MOUNTAIN GUAVA—*See* GUAVA.

MOUNTAIN MAHOE—*See* MAHOE.

### MOUNTAIN PRIDE.

### SPATHELIA.

CL. 5, OR. 3.—*Pentandria trigynia.* NAT. OR.—*Bicornes.*

GEN. CHAR.—Calyx five-leaved, leaflets oblong, coloured; corolla five oblong equal petals; stamens five filaments, awl-shaped, ascending, marked with a tooth at the base; anthers ovate; the pistil has an ovate germ, shorter than the stamens, three styles, and simple stigmas; the pericarp is an oblong capsule, three-lobed.

three-winged, three-celled; cells accompanied by a lateral, resiniferous canal; seeds solitary, oblong, three-sided. One species is a native of Jamaica.

SIMPLEX. SIMPLE.

*Aceri aut paliuro affinis arbor caudice non ramoso, foliis sorbi sylvestris, floribus pentapetalis racemosis speciosis purpureis, fructu sicco tribus, membranulis extantibus alato.* Sloane, v. 2, p. 28, t. 171.

This tree rises by a single slender stem like the palms, and bears all its oval leaves in a pinnated order, on moderate ribs disposed closely together about the top; the leaflets are six or seven inches long, and about two broad in the middle. The branches grow from all sides at the top in a spiral order, for about two feet in a tree fifty feet high; they spread horizontally, the lowest about five feet long, but diminishing in size as they approach the summit. As the old ones drop they leave triangular protuberant marks on the body of the tree, which may be observed running spirally its whole length. A tree which measured fifty feet high was only seventeen inches in circumference about four feet from the ground, and the tree leaned considerably from the weight of the pyramid of flowers, which issued from its summit, close to the foliage, and had a most magnificent appearance; the base branches of this pyramid measured upwards of eight feet from the point of one to the point of the opposite; it was six feet high, and thickly covered with beautiful bright purple flowers, about half an inch in diameter, when expanded, which, as the tree generally overtops all other trees in the woods, may be seen at a very great distance. The wood is white, soft, brittle, and of no use in building. Gartner describes the fruit very accurately, as follows: "A juiceless drupe, ovate-three-sided, smooth, bay-coloured; rind membranaceous, fungous, widening out into rigid brittle wings; shell three-seeded, stony, ovate-acuminate, peduncled with a long rigid bristle, rounded, three-cornered; the corners and cells accompanied by a roundish appendicle, prominent above into a dagger point, internally channelled, and abounding in a resinous fluid. Seeds in each cell one, sub-cylindric, acuminate at both ends, on the side towards the resiniferous channel, slightly marked with a groove, of a red rusty colour, cohering with the outer side of the cells. On the same tree are other fruits, compressed like a lens, having two wings only, and two-celled, but in the rest of their structure resembling the others." Browne calls this *maiden-phum tree*, from its resemblance to the *comocladia*, which is a very different tree.

#### MOUNTAIN REED GRASS.

#### APLUDA.

CL. 23. OR. II.—*Polygamia monoecia.* NAT. OR.—*Gramina.*

DIAGN. CHAR.—Calyx a common bivalve glume; female floret sessile, males peduncled; no male calyx; corolla bivalve; stamens three; no female calyx; corolla bivalve; one style; one-covered seed. One species is a native of Jamaica.

#### ZEUGITES.

*Arundinaceus, ramosus, minor, rufescens; panicula sparsa terminali.*  
Browne, p. 341.

Leaves

Leaves ovate; male flowers awnless, one at the end sessile; and awned.

Culm from one to two feet in height, filiform, jointed, sub-divided, round, sheathed, smooth, tinged with brownish-red; leaves petioled, acute, nerved, netted, very smooth, bright green; petioles filiform, from the cloven tip of the sheaths, which are lax, without any ligule, striated, broader at the joints. Panicle diffused, few-flowered; racemes capillary, spreading; florets pedicelled, small; common glume ovate, retuse, half-embracing a sessile female floret, and male ones pedicelled; the female has no calyx; glume of the corolla bivalve; outer-valve keeled, acute; inner ovate-lanceolate, awned; awn terminating, capillary, only half the length of the glume; stamens none; germ oblong; style simple, but bifid above the glume; stigmas villose, long, white; seed oblong: male flowers two, short, half the size of the other, on a pedicel the length of the female floret, rising from the glumes of it; no calyx; glume of the corolla bivalve; valves equal, acuminate, awnless; filaments three, the length of the valves; no pistil.—*Sw.* Browne says that he found this curious little plant at Cold-spring, in the mountains in New Liguanea, growing in a rich shady soil.

MOVING PLANT—See FRENCH HONEY-SUCKLE.

MUGWORT—See WILD WORMWOOD.

MULBERRY—See FUSTIC.

#### MULES FERN.

#### HEMIONITIS.

OR. 94, OR. 2.—*Cryptogamia filices.* NAT. OR.—*Filices.*

GEN. CHAR.—Capsule digested into lines, meeting together, either intersecting each other or branched. Four species are indigenous to Jamaica.

##### 1. LANCEOLATA. LANCE-SHAPED.

*Parasitica acaulis, foliis longis angustis utrinque productis.* Browne, p. 95.

Fronds lanceolate, quite entire.

The narrow leaved undivided *hemionitis* is commonly found on the trunks of trees in the cooler and more shady inland woods; the leaves are plain and simple, and seldom exceed sixteen or eighteen inches in length, when most luxuriant; they grow in tufts from a strong fibrous root.—*Browne.*

##### 2. PARASITICA. PARASITICAL.

*Parasitica repens, foliis ovato-acuminatis.* Browne, p. 95.

Fronds ovate-acuminate; shoots chaffy, creeping.

The creeping *hemionitis* with pointed oval leaves is an uncommon plant, sometimes found creeping on trees in the cooler shady inland woods; the leaves are about two inches long, and one and a half over where broadest. I observed this species far back in the mountains of St. Ann.—*Browne.*

##### 3. PALMATA. PALMATED.

*Hemionitis folia hirsuta et magis dissecto seu ranunculi folio.* Sloane.



†. 1, p. 72. *Sub-hirsuta monophylla, simplex, funde palmato lobata.*  
Browne, p. 95.

Fronds palmate, hirsute.

Roots many, fibrous, black. Stalks black, cornered, about six inches high, covered with a ferruginous moss. Fronds divided into three sections, cut in almost to the centre; the two under parts having ears or appendices, making the leaf appear divided into five sections; the middle division largest, an inch and a half long, and half as broad in the middle, easily dented on each side, rough, and of a yellow greenish colour; each ends in a point, and has a purple mid-rib, from which grow several transverse fibres, on which is the seed. The whole frond is like the leaf of the creeping *ranunculus*. It grew on the shady banks of a gully in a wood, between the town savanna and Two Mile Wood.—*Sloane*. The hairy simple lobe-leaved *hemionitis* seldom rises above five or six inches from the ground. It is pretty hairy every where, and grows chiefly in low moist places, but thrives best in rich luxuriant shady soil.—*Browne*.

4. LINEATA. LINEAR.

Frond lanceolate-linear; lines of fructification nearly parallel, longitudinal.

—*Sw.*

See FERNS.

No English Name.

MUNTINGIA.

CL. 13, OR. 1.—*Polyandria monogynia.* NAT. OR.—*Columnifera.*

So named from Abraham Munting, professor of botany at Groeningen.

GEN. CHAR.—Calyx a one-leaved perianth, five-parted, concave at the base; segments lanceolate, acuminate, large, deciduous; corolla has five roundish concave petals, spreading, inserted into the calyx, (longer than it); stamens very many filaments, capillary, short; anthers roundish; the pistil has a globular germ, clothed with villose hairs; style none; stigma headed, pentagonal, rayed, permanent; pericarp a globular berry, umbilicate with the stigma; five-celled (frequently more); seeds numerous, roundish, very small, nestling. There is only one species of this genus, which is a native of Jamaica.

CALABURA.

*Loti arboris folio angustiore, rubi flore, fructu polyspermo umbilicato.*  
*Sloane*, v. 2, p. 80, t. 194, f. 1. *Fruticosa et villosa; foliis serratis oblongis, ab uno latere brevioribus.* *Browne*, p. 245.

This small tree rises from ten to twenty, or, according to *Sloane*, thirty feet, with a trunk eight or nine inches in diameter; sending out many irregular, spreading, long, round, hairy, branches, covered with a smooth purple bark, with distich slender branches and twigs set alternately. In habit and leaves not unlike the bastard cedar.—Leaves alternate, flat, spreading horizontally, oblique, ovate-lanceolate, acuminate, unequally serrate, nerved, green and hirsute above, hoary-tomentose and viscid underneath, three, four, or five, inches long, and three-fourths of an inch broad at the base.

base; the upper one more oblique, or stretching much farther back on one side of the petiole than they do on the other; petioles short, round, hirsute; stipules solitary, the length of the petioles, filiform, hirsute in front at the base of the leaves; the hairs of the leaves are glandular. Peduncles two to four, between the petioles, and not axillary, clustered, longer than the petiole, shorter than the leaf, one-flowered, round, villose-viscid. Jacquin remarks that they successively turn the flower when it is about to expand, to the face of the leaf, which before was reflexed to the back of it. Flowers without scent, but handsome, an inch in diameter, resembling those of the bramble, according to Sloane. The calyx is ash-coloured, and the petals white; the former is five or six-parted, the parts the same length with the petals, hirsute and viscid; the latter five or six in number, with a very short claw, and plaited; filaments twenty-five to thirty, shorter than the germ; anthers twin, germ smooth; stigma five or six-cornered, five or six rayed.—*Sw. & Jacquin.* Berry spherical, crowned with the sessile stigma, which has from four to six grooves, succulent, many-celled; partitions membranaceous, very thin, sub-divided towards the periphery, when the cells are unequal and irregular; seeds very smooth and shining, whitish or pale straw colour, nestling in the pulp without any receptacle.—*Gartner.* It is frequent in the hills and lower mountains of Jamaica; the branches are very irregular and spreading, the twigs slender, and the leaves hairy and narrow, stretching much farther back on one side of the foot-stalk than they do on the other.—*Browne.*

## MUSHROOMS.

## FUNGI.

CL. 24, OR. 5.—*Cryptogamia fungi.*

So little is known about the fructification of *funguses*, that the characters are taken from external form. It is evident that they are vegetables and produce seed, by which they have been propagated. The following are indigenous to Jamaica:

## I. AGARICUS.

GEN. CHAR.—Cap with gills underneath; gills differing in substance from the rest of the plant, composed of two laminas; seeds in the gills. Of this there are two species.

## 1. STRIATUS. —STRIATED.

Stemless, convex, ferruginous hairy; margin entire; lamellæ alternate, interrupted, ash-coloured.—*Sw.*

*Browne* calls this the larger white *agaricus* with interrupted laminae, frequent enough in the woods of Jamaica. It is easily distinguished by its white colour, thicker mass, and the interrupted disposition of its laminae or seed plates. He adds that this vegetable has lately been discovered to be the most effectual application hitherto known to restrain the effusion of blood in recent or old wounds, as well as in surgical operations, and was found to answer where considerable arteries had been cut; applied in small pieces to the extremities of the vessels: for this purpose the middle part is only used, the outward coats being stripped off.—*See Cases in Surgery, by Joseph Warner, 1754.* *Browne* mentions another species, which he calls the oblong fringed *agaricus*, beautiful

beautiful in its form, and of a whitish ash-colour, and rare. He found it in the mountains of St. Ann's.

2. **RADIATUS.**      **RADIATE.**

Stemless, fan-shaped, white, hairy; margin cut-crenated; lamellæ coloured.  
—Sw.

**II. BOLETUS.**

**GEN. CHAR.**—Horizontal, porous or punched with lobes underneath. Seven species grow in Jamaica.

1. **MICROPORUS.**

Stemless, woody, hard, difform, unequal; pores unequal, impalpable, palish. This is the *poria* 2 of Browne, p. 77, *crassissima fusca, porulis minimis*, common in Jamaica, and grows thick, rugged, and lumpish, in time, but is perfectly smooth, and of a whitish colour, when young.

2. **SANGUINEUS.**      **BLOODY.**

Rather membranous, red; pores impalpable. This is Browne's *poria* 2. *Minia superne glabra*, which he calls the *scarlet poria*, with a smooth surface, also common in Jamaica.

3. **MEMBRANACEUS.**      **MEMBRANACEOUS.**

Stemless, gregarious, proliferous, somewhat membranaceous, smooth, rayed, white; pores erose or gnawed, difform.—Sw.  
This seems to be Browne's *poria* 3.

4. **VILLOSUS.**      **HAIRY.**

Stemless, somewhat membranaceous, bundled, whitish, villose; pores difform, dented.—Sw.

5. **FASCIATUS.**      **BUNDLED.**

Stemless, hard, unequal above, blackish brown, bundled; pores white, very small.

6. **HYDROIDES.**      **HYDNUM-LIKE.**

Stemless, thick, bristly, branchy, erect, with a thick black cover above; pores very small and fine.

7. **RESUPINATUS.**      **RESUPINATE.**

Stemless, resupinate, smoothish white below; the pores above impalpable, brown.

**III. CLATHRUS.**

**GEN. CHAR.**—Fungus roundish, cancelled with fleshy branches interwoven with each other. There is only one species.

**CANCELLATUS.**      **LATTICED**

*Bubbla major odorata et obverse ovata.* Browne, p. 78.

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The flesh coloured *clotria*, with a strong smell, is a curious mushroom, found sometimes in Jamaica; it is of a lax spongy texture when fresh, hollow within, and furnished with large rhomboidal apertures, disposed in an oblique direction in every part. It is of a rosy colour and rank smell.—*Browne*.

#### IV. CLAVARIA.

GEN. CHAR.—This genus is one of the lowest order in the scale of vegetation, and in substance is sometimes like a piece of rotten wood, it can no otherwise be characterised than as an oblong fungus, simple, or branched, with the seeds dispersed over the whole surface, or collected in tubercles opening at the top. One species has been found in Jamaica by Swartz.

FUSCA. BROWN.

Turfy, brown; stem simple, compressed, united at the base, hairy; apex sometimes forked.

#### V. HELVELLA.

GEN. CHAR.—Inflated, deformed, or concave, smooth, elastically ejecting the seeds from the upper surface. Swartz describes four species as natives of Jamaica.

1. VERSICOLOR. CHANGEABLE.

Stemless, membranaceous; floescence two-coloured, below smooth and white.

2. TREMELLINA.

Stemless, coriaceous, undulate, smooth, lead like; below rough, hairy.

3. ATRATA. BLACK.

Stemless, membranaceous, brittle, smooth on both sides, black.

4. PALLIDA. PALE.

Stemless, coriaceous, brittle, smooth on both sides, brown above, whitish below.

#### VI. HYDNUM.

GEN. CHAR.—Horizontal, echinated beneath with awl-shaped fibres. Swartz has three species of this genus he found in Jamaica.

1. AGARICOIDES. AGARICUM-LIKE.

Convex, smooth, pale, ferruginous below.

2. RESUPINATUM. RESUPINATE.

Plain, imbricated, below scabrous, above covered with bristly ferruginous dots.

3. SERICEUM. SILKY.

Plain, imbricate, below scabrous, of a woolly texture, silky on both sides, whitish green.

#### • VII. PEZIZA.

## VII. PEZIZA.

GEN. CHAR.—Fungus bell-shaped, concealing lens-shaped, seed-bearing, bodies.—  
Swartz gives two species as natives of Jamaica.

## 1. NIGRESCENS. BLACK.

Globose-campanulate, oblique, within smooth black, without rough-hairy;  
margin entire.

## 2. FLAVA. YELLOW.

Globose-campanulate, oblique, within pubescent, without smooth; on both  
sides yellow; margin entire.

## 3. LENTIFERA.

Open, small, cone-like; capsules compressed, black.—*Browne, p. 78.—*  
*Cyathia.*

Browne calls this the smaller smooth *cyathia*, with black compressed shining capsules.

## 4. AURICOLA. EAR-LIKE.

Concave, wrinkled, ear-shaped, brown.

This is the *fungus noxious primus, vel membranaceus auriculam referens*, &c. of  
Sloane, v. 1, p. 65, to be found on trees; he could observe no difference between it  
and the European plant.

Many of the mushrooms are cultivated in Europe as a delicious food, and those of the  
species of *agaricus* are though best, though others have been found poisonous. Bar-  
ham and Sloane notice a kind, *fungi albi venenati visceri*, growing commonly with the  
inoffensive sort, and so much resembling it, that they are not easily distinguished;  
Barham describes the symptoms to be, that, soon after they are eaten, a hiccup  
seizes the patient, then a cold or chilliness all over the body, attended with tremblings,  
and, at last, convulsions and death; he recommends the antidote cocoon, and the  
*jaborand* (*piper reticulatum*), described under the article *pepper trees*, as antidotes to  
this poison. The most venomous sort, he adds, is one that rises out of the ground  
about six inches high, rounding, and hollow like a bladder, as red as scarlet, full  
of holes like fine wrought net-work; which is most probably the *clathrus cancel-  
latus*. The following simple and easy method is recommended for trying the quality  
of mushrooms: Take an onion, and strip the outer skin, and boil it with them; if the  
onion become blue or black, there are certainly dangerous ones among them; if it re-  
mains white they are good. Where the symptoms of poison have already taken place,  
the Medical Assistant recommends an emetic, drinking plentifully of warm water, and,  
when the contents of the stomach are brought off, to have recourse to strong cordials,  
such as ginger-tea and brandy, with laudanum; or Cayenne pepper made into pills.

## MUSK MELON.

CL. 21, OR. 10.—*Monococcia syngenesia.*

GEN. CHAR.—See Cucumber, p. 253.

## CUCUMIS.

NAT. OR.—*Cucurbitacea.*

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MELO

## MELON. MELON.

Angles of the leaves rounded ; fruits torulose.

Stems procumbent or trailing to a great length, very much branched, furnished with tendrils ; leaves palmate-sinuate, or entire, waving about the edge, and slightly toothed, with rounded corners, rough with bristles. Flowers pale yellow, lateral, solitary ; calyx covered with white hairs ; corolla wrinkled, ribbed, and having bristles along the ribs on the outside. The female flowers, as they are called, have four large anthers, and the germ is sub-globular, and covered with white hairs ; fruit roundish, or oval, commonly furrowed longitudinally, sometimes netted, warted, or carbuncled, from four to twelve inches in length and diameter, yellowish-green ; pulp firm, musky, reddish, seldom green ; seeds many, oblong, pale, in a watery pulp. This plant has been long ago introduced into Jamaica, where it has thriven luxuriantly, in several of its varieties.

The seeds for propagation should be procured from good melons, of the soundest sort and highest flavour, produced, as some have advised, in a distant garden ; for, if sown on the place where it was raised and ripened, it is very apt to degenerate. In England the seeds are kept three years before sown, but not more than six. When seed is required sooner it is recommended to be exposed to the sun, or carried in the pocket three or four weeks.

When the melon is perfectly fine, it is full without any vacuity : this is known by knocking upon it ; and, when cut, the flesh must be dry, no water running out, only a little dew, which is to be of a fine red colour. Large melons are not to be coveted, but firm and well-flavoured ones.

The French raised particularly fine melons, by a method kept as a secret, but which is no other than the ingenious Mr. Quinting's of that nation, published near a century ago in the Philosophical Transactions.

The melons particularly proper to be treated in this manner, are those which have a thin and somewhat embroidered skin, not divided by ribs, and have a red pulp, dry and melting on the tongue, not mealy, and of a high flavour. These are what succeed in the following method ; and are greatly improved in size and flavour by it :— When the seeds of this melon are placed in the ground, the first thing that appears is a pair of seminal leaves. Between these two leaves there shoots, some days after, a leaf called the first leaf or knot ; and out of the same place, after some days more, there shoots another leaf, called the second knot. Out of the midst of this stalk of the second knot, there shoots a third knot ; this third knot must be cut off at its insertion, without hurting the branch of the second knot from whence it grows. Out of this place there will grow, after this cutting, a branch, which will be what the gardeners call the first arm ; and this arm will, in the same manner as the first plant, shoot out, first one, then a second, and then a third, knot ; this third knot must be cut again as before, and thus the third knots are all along to be cut off, and arms or branches will grow up in the places of them all the way in the same manner as the first ; and it is at those arms that the melons will be produced, and they will be always good, if the foot or root be well nourished in good earth. The foot of the melon must never be suffered to pass into the dung, and the earth must not be watered but moderately, when it is seen to grow too dry ; but in this case it must be moderately moistened in time, lest the

the root suffer by it. Twice or thrice a week is often enough to water in the driest weather, and this must always be done about sunset; and when the heat of the sun is too violent the melons must be covered. When it rains much they must also be covered. If the root produce too many branches, the weakest are to be cut off, and only three or four left; and those which are left are to be such as have their knots closest to one another. When the plants are removed from the seed bed to the places where they are to stand, if they are very strong, they should be planted single; but if otherwise, two are to be set in each hole.

When they are planted single, the two branches, which always grow on each side from the base of the seed leaves, are to be left on; but when two plants are set together, these branches are to be cut off, otherwise all the branches will be too numerous, and they will entangle and spoil one another.

When the melons are knit, two of them only are to be left on each foot, choosing those which are best placed, and next to the first and principal stalk, that is, to the heart of the foot. None but fair fruits are to be left, and such as have a thick and short tail; and the foot of the melon must be short, well trussed, and not far distant from the ground. Melons of a long stem, and having the stalk of the leaf too long and slender, are never vigorous. All the superfluous branches must be cut off from time to time, as they shoot out. There sometimes shoots out a branch more than is here mentioned, between the two seed leaves or ears. If this is strong and vigorous, it is to be kept on, but, if weakly, it is best to take it off, for it will never bear good fruit.

There are several varieties of the melon kind here, where they thrive exceedingly well, and with little trouble or attention. The varieties consist in the shape, whether round, oval, compressed, or long; the roughness or smoothness of coat; the colour of the flesh, whether white, red, greenish, or yellowish; and in sweetness and flavour. A gentleman here, the most curious in their cultivation, used to prepare some fine mould in small baskets, in which the seed was sown; these baskets were set in little hillocks of earth, and suffered to decay. I know not the particular reasons for this method, but his fruit was of a superior quality to most. The musk and cantelupe are highest in esteem, grow to a large size here, and arrive at the utmost perfection, particularly the latter kind with a greenish flesh, which (contrary to Mr. Miller's observation, in regard to those raised in England,) is by far the richest, finest flavoured, and dissolves in the mouth. The musk has no net work about it here as in England, and turns very yellow.—*Long.*

See CUCUMBER.

MUSK OCHRA.

HIBISCUS.

CL. 16, OR. 6.—*Menadelpia polyandria*. NAT. OR.—*Columnifera*.

GEN. CHAR.—See Changeable Rose, p. 175.

ABELMOSCHUS. MUSK-SEEDED.

*Hispidus, foliis quinquelobis, lobis acutis, semine muscato.* Browne, p. 285.

Leaves

Leaves sub-peltate, cordate, seven-angled, serrate; stem hispid.

This rises with an herbaceous stalk three or four feet high, sending out two or three side branches, garnished with large leaves, cut into six or seven acute angles, they stand alternately on long pedicels, which, as well as the leaves, are hairy. The flowers are axillary, upon long peduncles, standing erect, they are large, the petals of a bright yellow, but red near the claw; the column in the midst of the flower is singularly beautiful, the divisions of the stigma have the appearance of purple velvet, and, bending back among the anthers, receive the gold coloured dust on their large heads, resembling purple tassels fringed with gold; the flowers are succeeded by pyramidal five-cornered capsules, filled with large kidney-shaped seeds of a very musky odour. The seeds, when grown to full maturity, have a strong and perfect smell of musk, a few grains being sufficient to perfume a whole room. Barham says these seeds are a good cure for stinking breath, and that they are cordial and expellers of wind. Browne observes that they may be used with great propriety in powders and pomatums, nor does he doubt that they may be used in emulsions and many medical cases. It was much cultivated in the French islands, and great quantities of the seed annually sent to France, which can leave no doubt they were converted to some useful purpose. In Dr. Dancer's Medical Assistant the seeds are said to be emetic.

See CHANGEABLE ROSE—INDIAN SORREL—MAHOE—OCHRA.

#### MUSK OR ALLIGATOR WOOD.

GUAREA.

CL. 8, OR. 1.—*Octandria monogynia*. NAT. OR.—*Melia*.

GEN. CHAR.—Calyx a one-leafed perianth, four-cornered, minute; corolla four spreading petals, lanceolate, obtuse; nectary tubular, cylindric, quite entire, length of the corolla, contracted at the throat; stamens have no filaments; anthers eight, growing to the inner edge of the nectary, ovate; the pistil has a roundish germ, on a very short pedicel; style subulate, thick, length of the nectary; stigma four-cornered, depressed; the pericarp a roundish capsule, large, sub-sessile, four-grooved, four-celled, four-valved; seeds solitary, oblong, with a scarlet aril. This is nearly allied to *trichilia*, from which it has been separated. There is only one species a native of Jamaica.

TRICHILOIDES. TRICHILIA-LIKE.

*Lauro affinis arbor, foliis latioribus ex adverso sitis, cortice cannabino, igno-moschum olente.* Sloane, v. 2, p. 24, t. 170, f. 1. *Arborea; foliis majoribus, ovatis, oppositis; petiolis brevibus, subtumidis ganglionosis.* Browne, p. 369.

This tree grows to a middling size with a smooth trunk, the bark grey; branchy towards the top. Leaves pinnate, without an odd leaflet; common petioles alternate, longish, round, smooth, ash-coloured; pairs of leaflets two to four, lanceolate-ovate, obtuse, entire, nerved, smooth; partial petioles short, thick, round; racemes a foot long, axillary, sub-divided, loose, the branches many-flowered; peduncles very short; calyx four-cornered, minute; segments blunt, spreading.—*Stm.* The nectarium is quadrilateral,



quadrigonal, shorter than the corolla, and lightly dented on the margin into sixteen sub-ovate lacinia, alternately shorter; the stigma is divided into four parts by two cross lines; at the base of every peduncle there is a very small lanceolated bracte. The structure of the capsule is the same as that of *trichilia*; the seeds are intensely bitter.

This tree is frequent in the midland woods, and grows to a considerable size. All parts of it, but especially the bark, smell strongly of musk, (resembling the smell of an alligator, whence the name,) and may be used instead of that perfume for many purposes. The wood is full of a bitter resinous substance, which renders it unfit for rum puncheons, being observed to communicate both its smell and taste to all spirituous liquors. But it is often cut for staves and heading for sugar hogsheads, when there happens a scarcity of other lumber. The powder of the bark is said to be a good emetic, and is, I am informed, sometimes used for that purpose.—*Browne*.

Some old negro women are extremely fond of perfuming their persons with the powdered bark, which, when dry, retains the odour, till they smell like civet cats.

There is no doubt but the resinous parts of this tree contain a volatile odoriferous oil, and that this, as well as the resin itself, which is soluble in spirits, might be converted to many useful, and probably medical, purposes.—*Long*.

*Musk-Wood*.—This is vulgarly and commonly called alligator-wood. The bark of the tree is thin, of a whitish-brown without and reddish within, and of a most pleasant scent, like musk. If you put a small piece of this bark into a pipe of tobacco, and smok it, it will perfume the room immediately. The wood also smells like musk, as well as the bark; but as it grows old and dry, its scent wears off.—*Barham*, p. 107.

## MUSK-WOOD.

## TRICHILIA.

CL. 10, OR. 1.—*Decandria monogynia*.

NAT. OR.—*Trihilata*.

GEN. CHAR.—Calyx a one-leafed perianth, mostly five-toothed; corolla five petals; nectary toothed, cylindrical, bearing the anthers at the top of the teeth; capsule three-celled, three-valved; seeds solitary, berried. Two species are natives of Jamaica.

## 1. MOSCHATA. MUSK.

*Laurus foliō breviorē, flore racemoso minore.* Sloane, v. 2, p. 21, t. 166, f. 1.

Leaves alternately pinnate, racemes axillary; flowers sub-decandrous, one-petaled; capsules one-seeded.

A tree twenty feet high; branches sub-divided, with a smooth striated bark; leaves alternately pinnate, entire, smooth, glossy, with parallel nerves; racemes axillary, solitary, upright, many-flowered, striated; flowers numerous, small, of a pale colour, with a short tube, and ovate, sharp, spreading, divisions; nectary tubular, shorter than the corolla; no filaments; anthers sub-sessile; germ ovate; style short, cylindric; stigma obtuse, cornered; capsule ovate, three-valved, single-seeded. Native of Jamaica;

maica, where it is called *musk-wood*, on account of the smell of every part of the plant, when rubbed. It flowers in May.—*Sloane*. The bark is reddish-brown; the wood hard, white, and aromatic. It grew in the inland parts.—*Sloane*.

2. SPONDIODES. SPONDIAS-LIKE.

*Erythronium, caudice non ramoso, folio alato, fructu rotundo tripipreno.*  
Sloane, v. 2, p. 103, t. 210, f. 2, 3.

Leaves unequally pinnate, sub-hirsute; pinnae numerous, the lower ones larger; racemes axillary.

This tree has several stems as thick as one's arm, by which it rises twenty feet, without branches, covered with a reddish-brown bark.—*Sloane*. Leaves smooth, or somewhat hairy, a foot long, scattered alternately at the ends of the branches; leaflets about ten on each side, the end one sometimes wanting, lanceolate-ovate, bluntly acuminate, quite entire, petioled, two inches long, the intermediate ones gradually larger. Racemes axillary, solitary, three inches long whilst in flower, but often lengthening to half a foot when fruiting; peduncles simple or branched; flowers inodorous, small, about thirty in a raceme; calyx half-five-cleft, spreading, flat, very small; petals whitish, spreading; filaments hairy internally; germ villose, style thick; capsule brownish, three-grooved; seeds in the larger fruit sometimes two, in the same cell, lying one upon the other, or side by side.—*Jacquin*. According to *Sloane* the leaflets are at an inch distant, pointed at both ends, smooth, dark green, on pedicels an eighth of an inch long. Fruit round, first green, then purplish, when ripe as big as a great garden pea, breaking into three membranes, expanding themselves, each having a crest or rising in the middle, and shewing three almost triangular distinct kernels, covered over with a thin scarlet pulp. The French call this tree *mombin batard*. *Sloane* found it in several places about the Crawl.

MUSTARD, BASTARD—See BASTARD MUSTARD.

No English Name.

MYGINDA.

CL. 4, OR. 3.—*Tetrandria tetragynia.* NAT. OR.—*Rhamni.*

GEN. CHAR.—Calyx a four-parted perianth, very small, permanent; corolla four roundish petals, flat, spreading very much; stamens four awl-shaped filaments, erect, shorter than the corolla; with roundish anthers; the pistil has a roundish germ; styles four, erect, short; stigmas acute; the pericarp a globular drupe; seed an ovate acute nut. Two species are natives of Jamaica.

1. RHACOMA.

*Fruticulosum tenue, foliis ovatis tenuissime denticulatis oppositis, racemis alaribus.* Browne, p. 145, t. 16, f. 1.

Leaves lanceolate-ovate, obtuse, crenate; flowers monogynous; stigma four-cleft.

This is an upright branching shrub, from two to three feet in height, with an ash-coloured bark; branches sub-divided, even, strict; leaves small, half an inch in length, opposite.

opposite, stiffish, scarcely nerved, smooth, somewhat shining; on very short petioles. Flowers in small racemes, very minute, red; racemelets or peduncles two or three-flowered, axillary, shorter than the leaves. Calyx four-cleft, very shortly tubular, red coloured at bottom; corolla deeply four-parted, sub-rotate, whitish red; segments ovate, minute, fringed at the edge; filaments from the base of the corolla, between the segments of it, bent in above the tube; anthers simple, very minute; germ ovate, style awi-shaped, undivided, the length of the tube; stigma four-cleft; drupe roundish, the size of a small currant, scarlet, shining; containing a spherical one seeded nut: native of Jamaica on the western sandy coasts, flowering in summer.—Sw.—Browne says he found it in the woods below Martha-Bræ River, growing among rocks, three or four feet high.

## 2. LATIFOLIA. BROAD-LEAVED.

Leaves elliptic, crenulate, sub-coriaceous; stigmas two to four, sessile.

This is a branching shrub, three or four feet in height; branches scattered, four-cornered, smooth; leaves opposite, oblong, blunt, remotely notched, veined, very smooth, rigid, on short petioles; peduncles shorter than the leaves, axillary, few-flowered; pedicels one-flowered; flowers very small, whitish. Corolla with a very short tube; border spreading, four-parted; parts oblong, blunt, flat, reflex, entire; filaments in the divisions of the corolla, the length of the border; anthers roundish; germ globular; no style; stigmas sessile, globular; drupe globular, containing an oblong, bony, wrinkled, nut.—Sw. •

## MYRTLES.

## MYRTUS.

CL. 12, OR. 3.—*Icosandria monogynia*. NAT. OR.—*Hesperidæ*.

GEN. CHAR.—See Bayberry, p. 75. Besides those described under their English names, the following species are also natives of Jamaica:

## 1. BIFLORA. TWO-FLOWERED.

*Fruticosus, foliis lanceolatis oppositis, floribus geminatis alaribus*.—Browne, p. 248, t. 25, f. 3. *Caryophyllus* 3.

Peduncles two-flowered; leaves lanceolate.

This beautiful shrub rises to the height of eight or ten feet, sending out many opposite branches, covered with a grey bark; leaves shorter and rounder at the points, smooother, and of a firmer texture than those of the pimenta. The flowers come out from the sides of the branches between the leaves, on slender footstalks, about an inch in length, two generally from the same point; berries round, of a brighter colour than the pimenta, but neither leaves nor fruit have its aromatic flavour.

## 2. ALPINA. ALPINE.

Peduncles solitary, terminating, one-flowered, very short; leaves ovate; branchlets in fours, fastigate; stem arboreous.—Sw.

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3. DISTICHA.

## 3. DISTICHA. DISTICH.

Peduncles axillary, many-flowered; shorter than the leaves; leaves distich, bent down, ovate-lanceolate; branches spreading.—*Sw.*

## 4. MONTICOLA. MOUNTAIN.

Peduncles many-flowered, very short, axillary, solitary; leaves ovate, blunted, flat, very smooth.—*Sw.*

## 5. AXILLARIS. AXILLARY.

Peduncles many-flowered, very short, axillary, clustered; leaves ovate-acuminate, shining, flat.—*Sw.*

## 6. VIRGULTOSA. SCRIBBY.

Peduncles axillary and terminating, paniced or racemed; leaves broad-lanceolate, attenuated; stem arboreous.—*Sw.*

Branches rod-like, smooth, with an ash-coloured bark, the young ones villose; leaves petioled, an inch and a half or more in length, sharpish at the base, smooth above and shining, pale underneath and veined, the younger ones somewhat dotted above; peduncles pubescent, in pairs from each axil, shorter by half than the leaves; pedicels opposite, remote, a quarter of an inch long, filiform, one-flowered; bracte ovate, minute, at the base of each pedicel, and two under each calyx; flowers small; segments of the calyx rounded, ash-coloured at the base; petals twice as long as the calyx, dotted.—*Vahl.*

## 7. FRAGRANS. FRAGRANT.

Peduncles axillary, trichotomous, and simple; leaves ovate, slightly convex, somewhat coriaceous, dotted, smooth; stem arboreous.—*Sw.*

Branches sub-dichotomous, smooth, purplish at the end; leaves sub-petioled at the ends of the branchlets, an inch and a half long, bluntish, with numerous simple veins, not reaching the edge on either side, and minute raised dots scattered over them; peduncles from the top two or three-flowered, the length of the leaves, compressed; pedicels three-flowered; flowers sessile.—*Vahl.*

*See* BASTARD GREENHEART—BAYBERRY—BLACK-CHERRY—PIMENTA.

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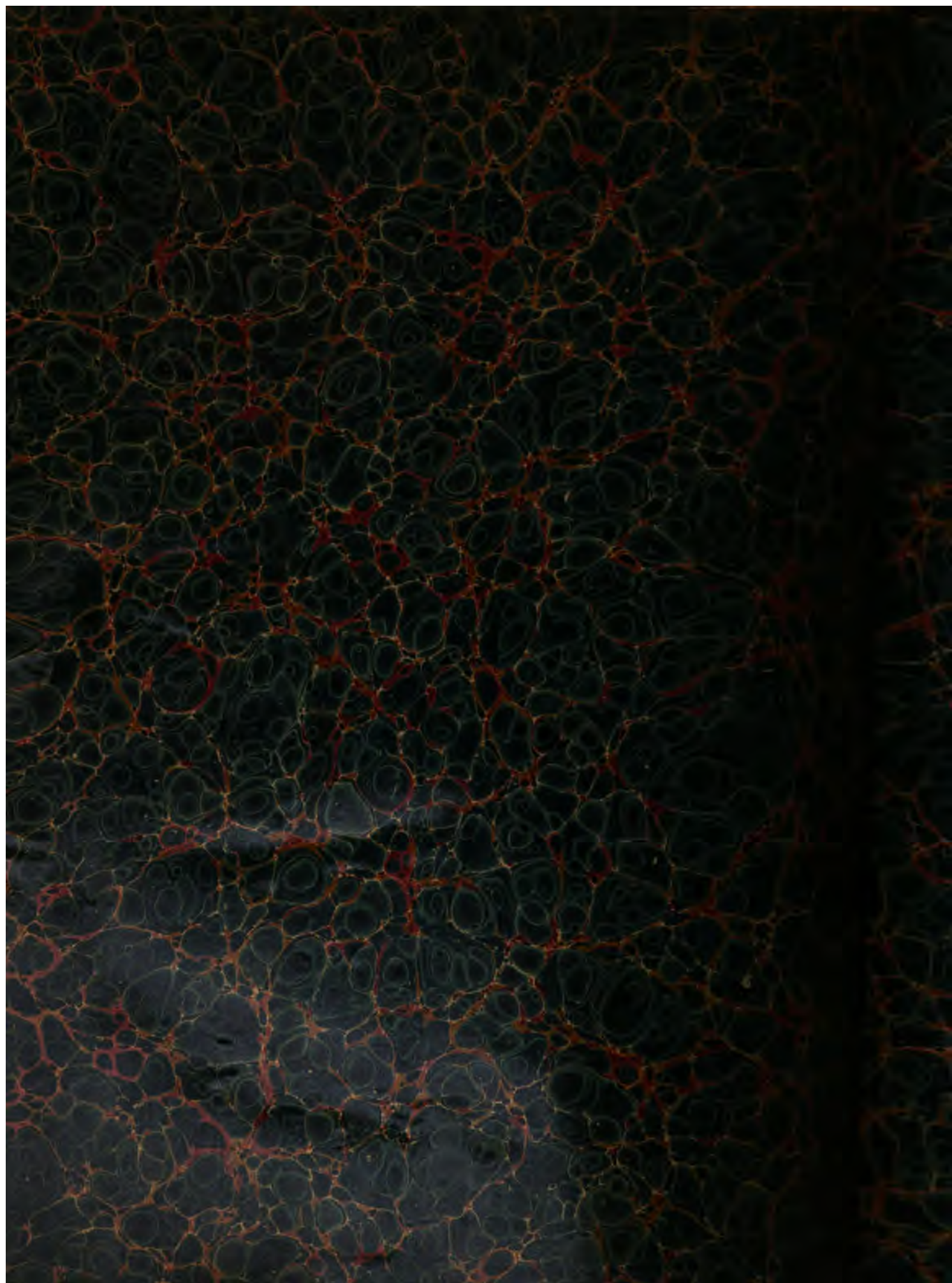




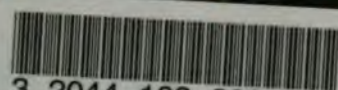












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